2018

Detroit City of Design

ACTION PLAN

Leveraging Detroit's UNESCO City of Design designation to drive inclusive growth.

United Nations Educational, Scientific and Cultural Organization

UNESCO DETROIT CITY OF DESIGN

Designated UNESCO Creative City in 2015

POWERED BY

design core DETROIT

FOREWORD

The Detroit City of Design Action Plan

WHEN DETROIT WAS NAMED A UNESCO CITY of Design in December 2015, everyone asked, “Why?” and “What next?” The answer to “Why?” was simple—because of the long legacy of design in Detroit and its promise for the future. The answer to “What next?” was more complicated. The application to UNESCO’s Creative Cities Network called for elevating design as an economic development strategy and integrating it into the city’s physical revitalization. Over the past two years, the team at Design Core Detroit (formerly Detroit Creative Corridor Center) has worked with a coalition of stakeholders to develop that answer together. This document lays out what we learned, our vision for inclusive growth, and a framework to achieve it.

This vision and strategic framework are not just for the design community. Design impacts everyone, for better or worse. Both designers and non-designers have a role in making design processes and outcomes more inclusive and bringing this vision to life. Our vision for inclusive growth demands each of us to ask critically: Who is this product, place, service, or system for? Are all welcome or able to use it? Does it make things better for all, or just for a few? It asks us to uphold our values. Together we must create an environment that allows this vision to flourish.

We would like to express our sincere gratitude to the countless people who helped develop this work. Many of their names are listed in the Acknowledgments, but there were hundreds more than that we are not able to formally recognize. These people participated in workshops and public meetings, sharing their ideas and thoughts throughout the process. This work is truly the result of a collective effort, and is emblematic of the collective nature of the work moving forward.

While Design Core Detroit stewards the UNESCO City of Design designation and convenes the initiative, progress comes from the contributions big and small that dozens of partners will make over the years. It comes from a shared commitment to learn and grow from each others’ experiences as we press on. While this document marks the end of one phase, it makes possible the beginning of the next.

What will Detroit look like in 2025? No one can know for sure, but we believe that by working together, inviting everyone to participate, and drawing on our diverse experiences, we can develop an inclusive Detroit that offers a good life to all. We hope that you will join us on this journey.

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Contents

The Detroit City of Design Action Plan is a tool for navigating the strategy and goals of Detroit's UNESCO City of Design designation. It is intended to serve as a guide for everyone in Detroit's design ecosystem—from designers to funders to policymakers—to think more strategically about the ways in which inclusive design can foster a more inclusive Detroit.

CHAPTER 1

A Detroit Design Story

Ron Watters' screen-printing business, One Custom City, is based out of Talking Dolls on Detroit's Northeast side. Photo courtesy of Ali Lapetina.

RON WATTERS FOUNDED ONE CUSTOM City, a screen-printing studio that merges craft and creativity, in 2008 during the peak of Detroit's recession and in response to a growing need to strengthen communities. He spent the better part of the past decade cultivating local talent through an apprenticeship program and by helping entrepreneurs bring their businesses to life through custom signage and printing. Watters grew up in Detroit, attending Detroit public schools before enrolling in art classes at College for Creative Studies (CCS), which led him to a degree in product design at the University of Michigan. From a young age, he knew he would build a life and a career in Detroit, where he felt the city's design legacy "inspired and moved the world."

As a child, Watters had a habit of taking things apart and putting them back together, but never quite in the same way. In conversation, he admits preferring to design something new with the leftover pieces. In his mind, this captures Detroit's design philsophy: "There's an openness to collaboration and to sharing of the creative process," explains Watters. As someone rooted in Detroit's traditions, he chose to pass this ethos forward: first at One Custom City through an apprenticeship program for community members interested in learning new crafts, and then through Talking Dolls, an interdisciplinary studio he co-founded that uses design, art, and craft to stimulate new ideas in Detroit.

For Watters, design is a vehicle through which he engages people outside of their comfort zones. By exposing Detroiters to new tools, materials, cultural references, and ways of thinking, he equips them with the skills and confidence to jump-start meaningful work and lift up their communities. Design becomes a platform from which inclusion stems: from the design of public spaces to the reinvention of public discourse. As Detroit continues experiencing this period of economic and social revival, design can influence the way Detroiters perceive their surroundings and each other. Design can also impact the way outsiders perceive Detroit: from a city trying to reinvent itself to one brimming with opportunity. As Detroit prepares to succeed in the 21st century and beyond, design can influence decisions that impact its industries, culture, and communities to shape a more equitable city.

CHAPTER 2

Overview

Eastern Market After Dark, an annual event during Detroit Month of Design, regularly draws thousands of people to experience art and design in the city's oldest farmer's market.
Photo Credit: Photo by Do Good Work. Copyright Design Core Detroit 2018.

DETROIT'S DESIGN LEGACY

FROM AUTOMOBILES TO ARCHITECTURE TO ADVERTISING, Detroit has a rich legacy of design and innovation, transforming the way the world has worked, moved, and lived. An industrial powerhouse that fueled the rise of the automobile, the city has also been a hub for creatives, home to iconic designers, artists, and craftsmen from the Arts and Crafts movement to American modernism and beyond.

At the turn of the 20th century, Detroit acquired the moniker of Motor City due to its established automotive industry, access to resources and capital, and serendipitous relationships among its industrial leaders and innovators. An industrial hub since the mid-19th century, Detroit produced a variety of goods, from cast-iron stoves to bicycles, pharmaceuticals, cigars, and more.

Manufacturing in particular served as the catalyst for the city's transformation. The advent of the moving assembly line revolutionized the manufacturing process, resulting in a faster, cheaper, and better way to produce goods. To meet the demand for labor that grew out of the assembly line, companies recruited the best and brightest minds from across the globe, luring engineers, scientists, craftsmen, and artists to Detroit with the promise of good wages, social welfare, and an evolving array of cultural amenities, including museums, libraries, theaters, and public spaces.[1]

Alongside the culture of automation and mass production, Detroit developed a reputation as a mecca for arts and crafts. Artists, artisans, and skilled laborers helped establish a number of organizations, including the Detroit Society of Arts and Crafts, which evolved into the College for Creative Studies of today.[2] Cranbrook Academy of Art was also born out of this movement. The school went on to produce storied designers such as Charles and Ray Eames, Florence (Schust) Knoll, Eero Saarinen, Harry Bertoia, and Ralph Rapson. [3]

By the 1940s, Detroit was known as the epicenter of the Mid-Century Modern movement, which embodied functionality, modern simplicity, and clean, sculpted lines. While the trend manifested around the globe, Detroit's contributions offered a unique twist, incorporating artisanal handcrafted elements, vibrant colors, and patterns.[4]

The prosperity enjoyed by Detroit in the first half of the 20th century resulted in an expansive wealth of architecture that continues to impress today, including Albert Kahn's Russell Industrial Center and Packard Plant, which became the template for urban manufacturing facilities around the world, alongside public institutions such as the Detroit Public Library and the Detroit Institute of Arts.[5]

Today, Detroit's design legacy lives on.

The mid-century gave way to a new era in architecture focused on clean lines, advanced materials, and a futuristic aesthetic. Lafayette Park, designed by Ludwig Mies van der Rohe, remains an architectural icon in Detroit and a rare example of a successful urban renewal project.[6] Detroit is also home to a number of buildings designed by Minoru Yamasaki, one of the city's most successful architects, best known for his design of the original World Trade Center.[7]

Today, Detroit's design legacy lives on. Design continues to guide the automotive industry, supported by the city's strong advertising community. Design is also prevalent in neighborhoods throughout the city, employed by residents as a tool to foster resilient communities.

DETROIT'S DESIGN LANDSCAPE

WHAT IS INCLUSIVE DESIGN?

Design

Design is a process by which aesthetic, cultural, social, technical, and economic potential is imagined and then translated to give order to objects, environments, and activities. The outcomes of design include products, services, systems, communications, buildings, and environments that improve daily life.[8]

Inclusive Design

Inclusive design takes into consideration the spectrum of human diversity and the individual experiences of each person to create solutions who have a broader social impact.[9] By designing for people that may seem like the exception in society, we can design places, products, services, and systems that work for all people in society.

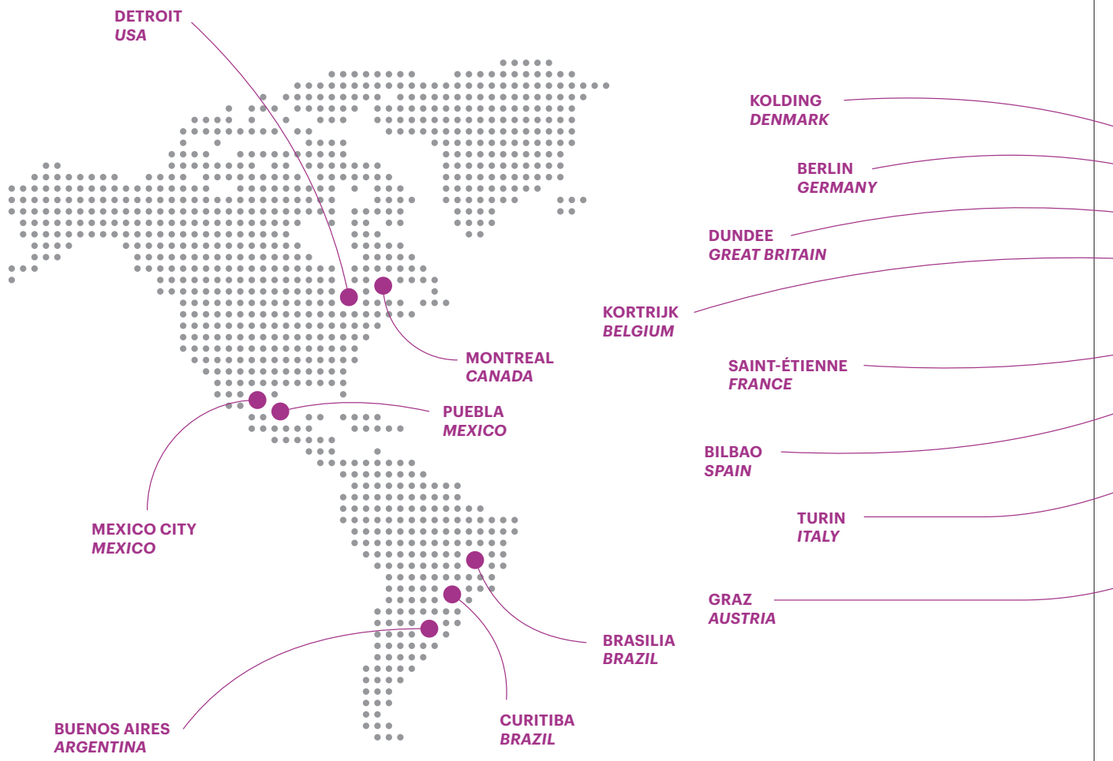
Residents pose with the final designs from Kef Parker's Bus Shelter project at the corner of Plymouth and Evergreen roads during the 2017 Detroit Design Festival. Photo Credit: Photo by Keenan Hastings. Copyright Design Core Detroit. 2018.

DETROIT'S CITY OF DESIGN DESIGNATION

IN DECEMBER 2015, DETROIT RECEIVED THE designation of UNESCO City of Design, a recognition bestowed by the United Nations Educational, Scientific, and Cultural Organization on cities demonstrating a legacy of and commitment to creativity as a tool for economic development. Joining 21 Cities of Design (now 30) and 180 Creative Cities across the globe, Detroit is the first and only U.S. city to receive the designation. Member cities are all committed to using design as a tool for economic development, achieving this through strategies that leverage their local culture and assets.

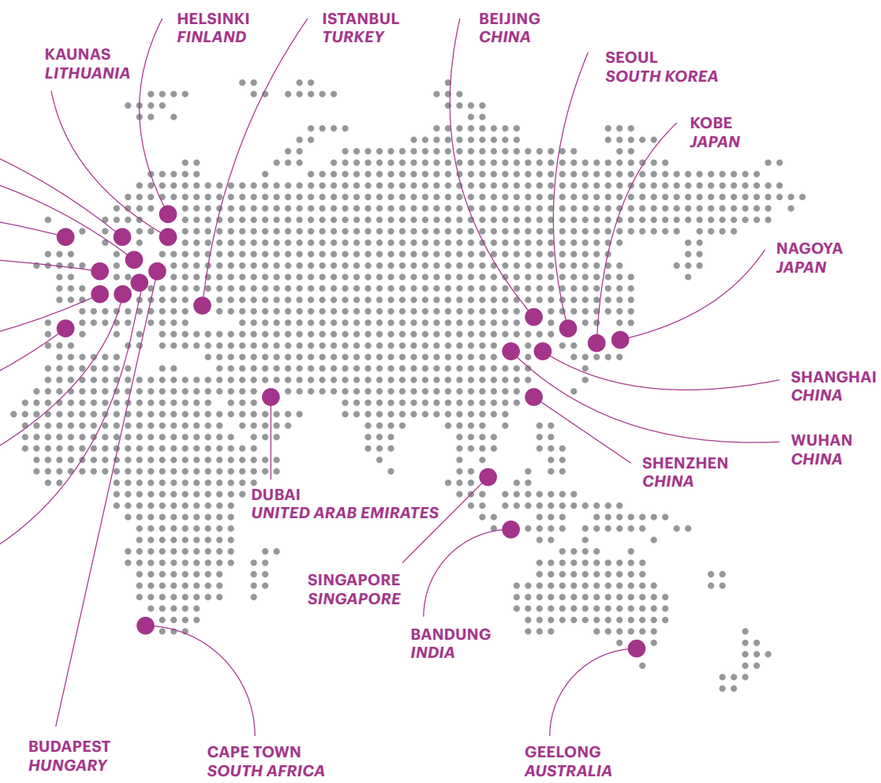
Detroit is now part of a network of cities committed to sharing best practices; developing partnerships that promote creativity and the cultural industries; strengthening participation in cultural life; and integrating culture in urban development plans. The designation is both a celebration of Detroit's design accomplishments and a call to place design at the heart of the city's economic agenda, providing a framework for ways design can positively impact the lives of Detroiters today while working toward a sustainable future.

UNESCO CITIES OF DESIGN



The power of design as a tool for solving challenges facing cities is evident in communities of all sizes and demographics around the world. The iterative and scalable nature of design makes it possible to catalyze solutions to a range of problems. Cities that are devising human-driven solutions through design interventions are seeing the benefits. These solutions can span the design disciplines, from traditional urban design to innovative industrial design approaches or more. For example, in Medellín, Colombia, projects like the city's elevated cable car as a means of public transit have transformed the city's social, spatial, and economic landscape by connecting it's low-income communities to its wealthier and well-served commercial center.[10]

In 2017, in an effort to make Seoul a Zero Waste City, the city opened the Seoul Upcycling Plaza in which the entire upcycling process, from collecting donated waste materials to processing, producing, and selling goods, takes place seamlessly at one venue. The Plaza transformed the Janganpyeong area, home to the Seoul Sewerage Science Museum and Janganpyeong Used Car Market, into Korea's largest eco-friendly recycling and upcycling town.[11]



BUILDING A VISION

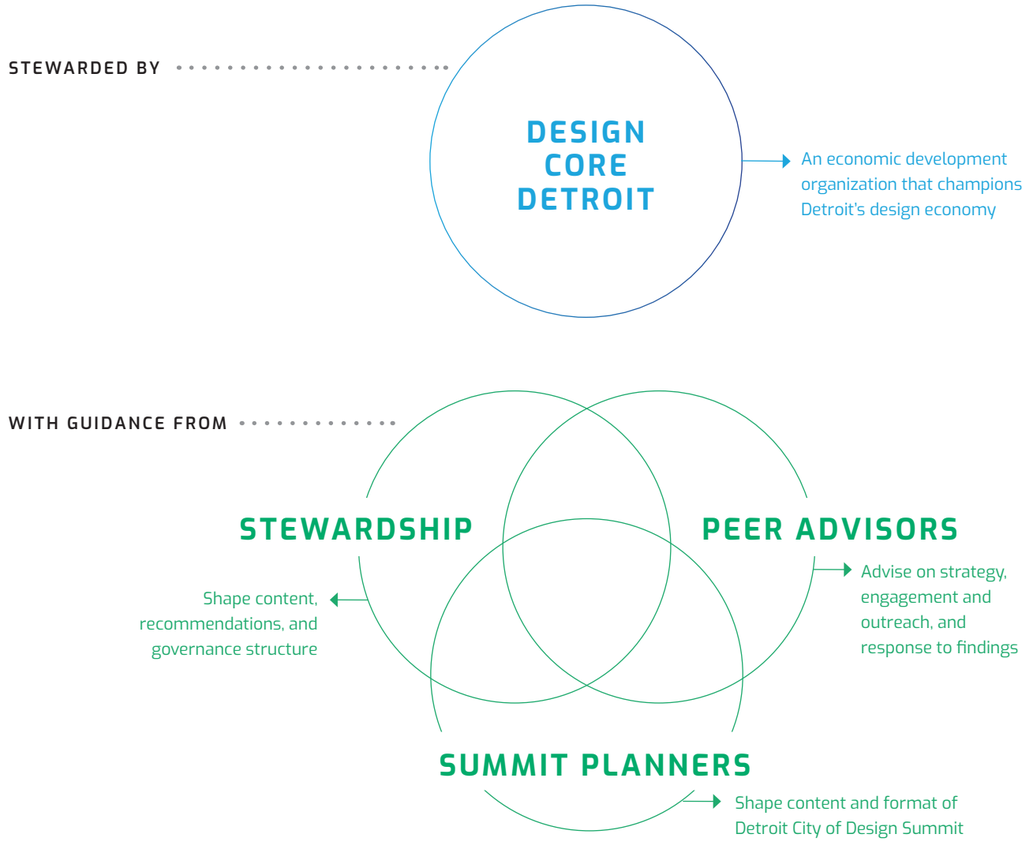
IN 2016, DESIGN CORE, IN partnership with its advisory board and key stakeholders, created the Detroit City of Design initiative to develop a long-term vision and action plan for activating the designation over the next 10 years.

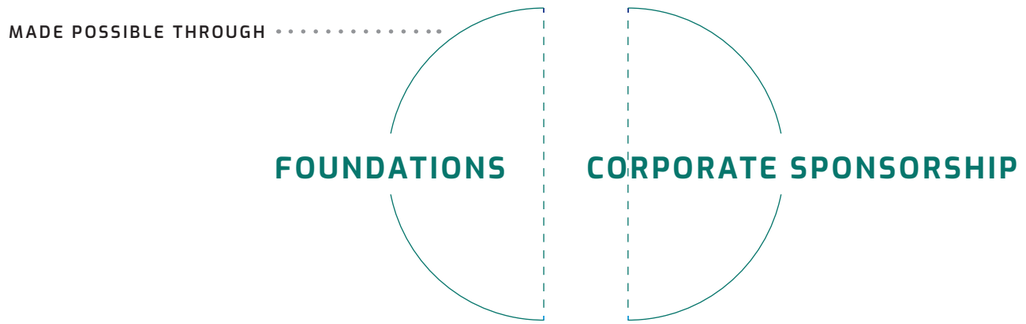
In turn, the initiative launched the Visioning Process, an inquiry into Detroit's creative ecosystem, designed to anchor strategies that can transform the city's economic development agenda. The Visioning Process employed an iterative and inclusive lens, best shown by the variety of engagement opportunities and the diversity of individuals reached over the course of the year. The activities—from interviews to charrettes to public meetings—used human-centered design practices informed by the lived experiences of Detroiters.

The Visioning Process adopted a phased and iterative engagement plan, designed to listen to and learn from a diverse range of stakeholders along the way.

Détroit is the New Black, a fashion label and retail space located downtown, hosts a rotating cast of pop-up shops for Detroit-based products. Photo Credit: Photo by Do Good Work. Copyright Design Core Detroit 2018.

KEY PLAYERS





METHODOLOGY

THE RESEARCH, CONDUCTED OVER THE COURSE OF a year, married the rigor of secondary data analysis with the context of primary data collection.

OUR PROCESS

1. Building a team for the visioning process
2. Discovering the design ecosystem
3. Synthesizing and validating the data
4. Developing an agenda for inclusive growth

150+ ARTICLES

20+ PUBLIC MEETINGS

100+ INTERVIEWS

1 WEEKLONG SUMMIT

1,000+ STAKEHOLDERS ENGAGED

The questions posed to stakeholders sought to unearth the ways in which the design community advances inclusion, and the extent to which design can foster economic opportunities for all Detroiters.

- **How do Detroiters define "the good life"?**
- **How do different stakeholders, sectors, industries, users, and audiences define design?**
- **How is design preparing the workforce for the future of work?**
- **What is the relationship between design and the built environment?**
- **What core values unite all Detroiters?**
- **What are Detroit's advantages and challenges vis-à-vis design?**
- **What kinds of investments are advancing design and designers?**

VISION

OVER THE PAST DECADE, DETROIT HAS EXPERIENCED significant investment and redevelopment. The city finds itself at a critical juncture: If done properly, there is an opportunity for these efforts to improve the quality of life for residents of Detroit. However, there is also a risk that the city continues the current patterns of segregation and economic isolation experienced by many Detroiters. The Detroit City of Design initiative believes that inclusive design practices can shape systems, processes, places, and products to generate sustainable and equitable results that will benefit all Detroiters.

Under the framework of the UNESCO designation, Detroit can become a model of inclusive design that generates inclusive growth. This model can help fashion, prototype, and produce new products, experiences, and systems in order to transform the city. With the right mix of talent, investment tools, and policies, Detroit can create a blueprint to export to other locales. To facilitate the creation of this model, the Detroit City of Design initiative crafted a declaration to guide Detroit through a new era of inclusive design.

The Detroit City of Design initiative believes that inclusive design practices can shape systems, processes, places, and products to generate sustainable and equitable results that will benefit all Detroiters.

ENDNOTES

1 (Thompson, 2011)

2 (College for Creative Studies, 2017)

3 (Cranbrook Academy of Art, 2015)

4 (Cranbrook Academy of Art, 2015)

5 (Julia Marie Teran, 2017)

6 (Mies Detroit, 2017)

7 (McGeen, 2018)

8 (Marshall, forthcoming)

9 (OCAD University, 2015)

10 (World Economic Forum, 2015)

11 (Seoul Design Foundation, 2017)

Declaration

Detroit City of Design believes in the power of inclusive design to shape a more **equitable, sustainable, and compassionate society.**

Design transforms ideas into products, services, communications, buildings, and environments that improve daily life. Inclusive design allows individuals to access the benefits of design regardless of ability, language, race, culture, income, gender, or age. **It enables everyone to engage equally, confidently, and independently in society.**

Detroit City of Design champions the use of inclusive design by residents, designers, businesses, educators, institutions, policymakers, and civic leaders. **Together, we imagine a better future for all Detroiters.**

Detroit City of Design builds on Detroit's creative legacy and culture of innovation. We will seek out diverse experiences
to maximize our collective wisdom to address the city's needs. We will invite wide participation through accessible opportunities. We will nurture collaborative relationships in order to accomplish more together.

By embracing the practice of inclusive design, our community can diminish inequities and promote inclusive growth.

CHAPTER 3

Detroit's Design Economy

THE DETROIT CITY OF DESIGN FRAMEWORK believes design is the process and practice that link creativity and innovation. It also recognizes the potential for design ideas to move beyond just products and services into the realm of activities and complex systems. In measuring Detroit's design economy, we looked at the core design occupations, but we also asked the question, "What jobs are closely related to or dependent on design?"

These codes have been organized into two distinct categories: One encompasses NAICS (North American Industry Classification System) and SOC (Standard Occupational Classification System) codes that specifically involve the design process (core design jobs), while the other includes all codes that immediately support the output of the design process (supportive design jobs).

The industries and occupations that have been determined to directly engage in design are designated with "core" design codes, which represent the core design economy of Detroit. Those industries and occupations that fill a function closely connected to core design codes in the supply chain of a product are designated with "supportive" codes, which comprise the Detroit design ecosystem.

Please see Appendix for a complete list of industry and occupation codes.

These determinations were made based on a hierarchy of four key criteria:

1. **The code's definition**
2. **The connections between the code and intuitive design industries or occupations**
3. **The concentration of the code in Detroit and Michigan**
4. **The impact or performance of the code on Detroit's economy**

DETROIT'S CORE DESIGN ECONOMY

INTERIOR DESIGN SERVICES

1,069 JOBS (MSA)
$148.6M SALES (MSA)

SET DESIGNERS

INTERIOR DESIGNERS

ARCHITECTURAL SERVICES

2,281 JOBS (MSA)
$489.6M SALES (MSA)

URBAN AND REGIONAL PLANNERS

ARCHITECTS

LANDSCAPE ARCHITECTURAL SERVICES

553 JOBS (MSA)
$103.1M SALES (MSA)

LANDSCAPE ARCHITECTS

TRAINING AND DEVELOPMENT SPECIALISTS

SOFTWARE DEVELOPERS

COMPUTER SYSTEMS DESIGN SERVICES

16,262 JOBS (MSA)
$2.71B SALES (MSA)

COMPUTER NETWORK ARCHITECTS

CUSTOM COMPUTER PROGRAMMING SERVICES

11,866 JOBS (MSA)
$1.83B SALES (MSA)

WEB DEVELOPERS

ADVERTISING AND PROMOTIONS MANAGERS

MECHANICAL DRAFTING

DRAFTING SERVICES

130 JOBS (MSA)
$30.4M SALES (MSA)

ELECTRICAL DRAFTING

INDUSTRIAL ENGINEERS

ENGINEERING SERVICES

43,244 JOBS (MSA)
$9.02B SALES (MSA)

MECHANICAL ENGINEERS

MARKETING MANAGERS

FASHION DESIGNERS

OTHER SPECIALIZED DESIGN SERVICES

248 JOBS (MSA)
$42.6M SALES (MSA)

FLORAL DESIGNERS

GRAPHIC DESIGN SERVICES

1,279 JOBS (MSA)
$150.8M SALES (MSA)

GRAPHIC DESIGNERS

INDUSTRIAL DESIGN SERVICES

4,887 JOBS (MSA)
$1.13B SALES (MSA)

COMMERCIAL AND INDUSTRIAL DESIGNERS

ART DIRECTORS

KEY TERMS

DESIGN CITY: The economic output related to the combined 139 industries and 105 occupations of the core design economy and the Detroit design ecosystem, within the city limits of Detroit, Highland Park, and Hamtramck.

DESIGN MSA: The economic output related to the combined 139 industries and 105 occupations of the core design economy and the Detroit design ecosystem, within the geographic boundaries of Detroit-Warren-Dearborn Metropolitan Statistical Area.

ALL CITY: The economic output related to the combined 1,001 industries and 786 occupations of the overall economy, within the city limits of Detroit, Highland Park, and Hamtramck.

ALL MSA: The economic output related to the combined 1,001 industries and 786 occupations of the overall economy, within the geographic boundaries of Detroit-Warren-Dearborn Metropolitan Statistical Area.

INDUSTRY: A group of businesses that produce similar goods and services, and share production processes for creating the goods and services they sell.[1]

WAGES: The monetary compensation provided to a worker for labor rendered for a business. Wages include bonuses, stock options, severance pay, the cash value of meals and lodging, tips, and other gratuities.[2]

SALES: The annual gross receipts of an industry as billed to both consumers and other industries.[3]

FISCAL IMPACT: Taxes and other special assessments collected by federal, state, and local governments by businesses within a particular industry.[4]

JOB/OCCUPATION: Any position in which a worker provides labor in exchange for monetary compensation. This includes those who work as employees of a business and the proprietors who work for themselves.[5]

JOB GROWTH: The increase (or decrease) in the number of employees within an industry or occupation set over a specified period of time. For this report, we are examining the five-year period starting in 2012 and ending in 2016. The growth rate is expressed as a percentage.[6]

DEMAND: The estimate of the amount of goods and services that all industries require from a given industry in order to remain in operation.[7]

HIGHLIGHTS OF DETROIT'S DESIGN ECONOMY

Detroit's core design economy is small but mighty.

Although Detroit's core design economy makes up only 1 percent of the industries and a little over 5 percent of all occupations, it provides talent, goods, and services for the entire design ecosystem, which represents over 20 percent of the region's economy. In 2016, demand for the products and services generated by design ecosystem, industries in the Detroit metro area reached $51 billion.[8]

The design economy is a major engine of job growth in Detroit.

In the years following the Great Recession, the city and region experienced high job growth in the core design industries and occupations. In fact, they grew six times as much as the city's and region's overall economies. Between 2012 and 2016, jobs within the core design industries grew by 15 percent in Detroit; in the metro area, they grew by 23 percent. Comparatively, Detroit's industries collectively experienced a 4 percent job growth.[9]

The design economy provides good jobs for Detroiters.

Wages in the core design and design ecosystem industries and occupations are higher than wages in the overall economy. They provide true middle-class income opportunities, but educational attainment requirements make many of the jobs difficult to reach for many Detroiters. For instance, jobs in core design occupations have median salaries of $34 per hour in Detroit, which translates to $71,500 yearly. In comparison, the same occupations in the Detroit metro area have median salaries of $30 per hour, reaching $66,000 annually. Both outperform Detroit's median salaries for all other occupations, which hover around $48,000 per year.[10]

The design economy is powered by small- and micro-businesses.

The vast majority of Detroit city and regional design firms employ one or two people, with engineering, architecture, and computer programming and design services leading the way. Of the 364 total design firms in the city of Detroit, 114 are single-person shops, while 1,945 of the region's 5,491 design firms are owned and operated by one person.[11]

Detroit's commercial and industrial design industry is world-class by any measure.

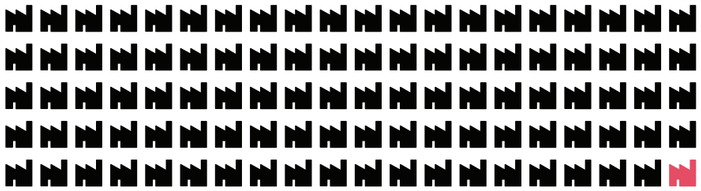
The Detroit metro area is the epicenter of commercial and industrial design in the US and globally. In 2016, industrial design services experienced 21 percent job growth, topped by commercial and industrial designers, whose occupations grew by 46 percent. These jobs cut across core design and design ecosystem industries, providing talent and services to many of the manufacturing industries, including furniture and home furnishings, motor vehicle, and footwear, which typically have in-house product designers.[12]

THE CORE DESIGN ECONOMY OF DETROIT

AS ILLUSTRATED IN OUR GRAPHIC ON PAGE 24-25, core designers include the people you would typically think of as designers, including employees in any industry or profession that has design in its name or as a primary function of its role as described by the Bureau of Labor Statistics. Examples of core designers include architects, software developers, and graphic designers, all of whom are tied to both industry codes and occupation codes. This analysis captures all relevant economic activity of core industries and occupations. This includes jobs, revenues, demand, and fiscal impact. In terms of economic impact, the accountant and office manager at an architecture firm is just as vital as the principal architect and CAD designer; all are part of the core design economy.

INDUSTRIES 2016

CORE DESIGN

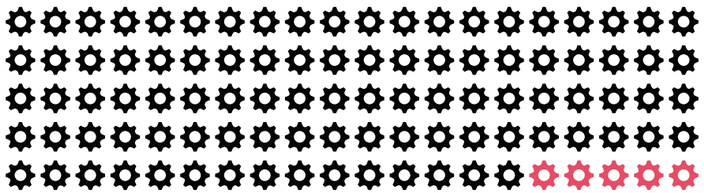


ALL MSA **1,001**
DESIGN MSA **10**

ALL CITY **1,001**
DESIGN CITY **10**

OCCUPATIONS 2016

CORE DESIGN

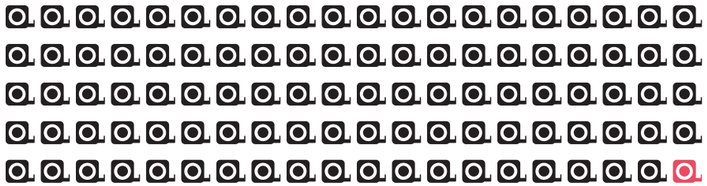


ALL MSA **786**
DESIGN MSA **41**

ALL CITY **786**
DESIGN CITY **41**

TOTAL INDUSTRY JOBS 2016

CORE DESIGN



ALL MSA **2,021,690**
DESIGN MSA **81,821**

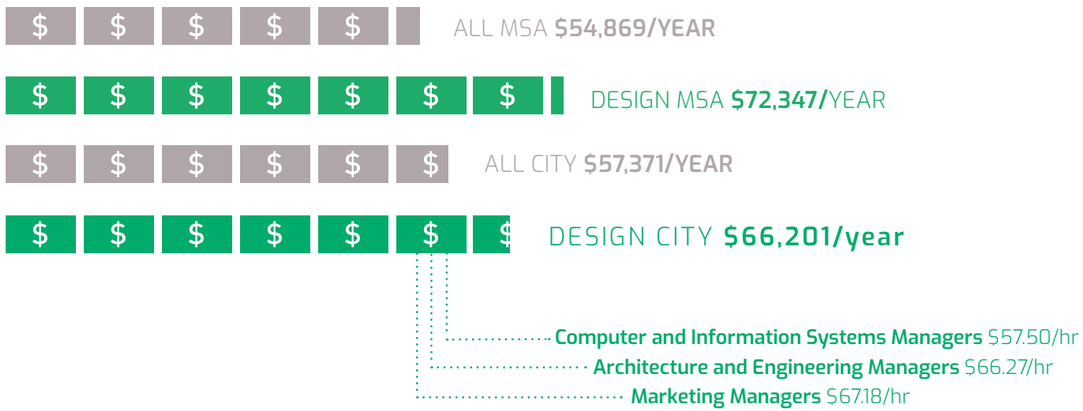
ALL CITY **241,220**
DESIGN CITY **2,998**

Detroit City of Design estimates that the core Detroit design economy of the city proper produced approximately $537 million in annual revenues in 2016 and directly employs a little under 3,000 people, each earning a median salary of $66,201 per year.[13] At the industry level, the jobs measured encompass any and all occupational fields employed to carry out the work in said industry—from the designer to the accountant—as part of the economic impact. Collectively, these industries experienced job growth increases of 15 percent over the five-year period from 2012 to 2016.[14] Growth was higher in the MSA as a whole, where 81,821 jobs represent a 23 percent growth between 2012 and 2016. On average, wages in the MSA are over $6,000 higher than in the city proper.[15]

Collectively, these industries experienced job growth increases of 15 percent over the five-year period from 2012 to 2016. Growth was higher in the MSA as a whole, where 81,821 jobs represent a 23 percent growth between 2012 and 2016.

INDUSTRY WAGES median 2016

CORE DESIGN



INDUSTRY REVENUE 2016
CORE DESIGN

DESIGN CITY **$537 million**

TOP THREE INDUSTRIES
Custom Computer Programming $148.9 million
Engineering $130.6 million
Architecture $125.4 million

DESIGN MSA **$16 billion**

TOP THREE INDUSTRIES
Engineering $9.02 billion
Computer Systems Design $2.71 billion
Custom Computer Programming $1.83 billion

In 2016, the city's core Detroit design economy created over $744 million in total demand, which is the amount of goods and services that all industries require from a given industry. While the data cannot determine exact proportions of demand that has been or could be satisfied by local firms, it can be assumed the Detroit design economy recycled hundreds of millions of dollars back into the overall Detroit economy. Within the core design industries, the Detroit City of Design initiative estimates that there are over 364 businesses operating in the city of Detroit, contributing over $6 million in local and state taxes.[16]

There are over 364 design businesses operating in the city of Detroit, contributing over $6 million in local and state taxes.

A comparison of the firms in each industry in the city proper to the firms in the MSA makes it clear that certain kinds of core design businesses tend to cluster either inside or outside the city limits. Architectural, landscape architectural, and graphic design firms are represented at a greater rate within the city of Detroit, while firms involved in engineering, interior design, and computer programming are more commonly found outside the city itself.[17]

INDUSTRY DEMAND 2016
CORE DESIGN

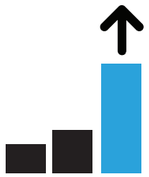
DESIGN CITY **$744 million**

TOP THREE INDUSTRIES
Engineering $232.4 million
Computer Systems Design $229.9 million
Custom Computer Programming $189.6 million

DESIGN MSA **$8 billion**

TOP THREE INDUSTRIES
Engineering $2.53 billion
Computer Systems Design $2.07 billion
Custom Computer Programming $1.82 billion

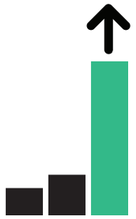
INDUSTRY JOB GROWTH 2012-2016
CORE DESIGN



DESIGN CITY **15%**

TOP THREE INDUSTRIES
Custom Computer Programming 55%
Architecture 41%
Industrial Design Services 21%

ALL CITY **4%**
ALL MSA **6%**



DESIGN MSA **23%**

TOP THREE INDUSTRIES
Industrial Design Services 57%
Other Specialized Design Services 52%
Landscape Architectural Services 30%

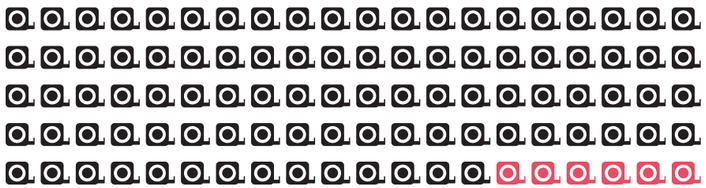
ALL CITY **4%**
ALL MSA **6%**

Comparatively, the region's core design economy is a relatively small part of the Detroit region's overall economy, with $8 billion in total demand versus over $252 billion for the overall regional GDP.[18] However, the core design economy exhibits higher job growth: 23 percent from 2012 to 2016 vs. 12.8 percent[19] for all industries operating in Detroit MSA in the same period. The core design economy also offers much higher median industry ($72,347) and occupation ($65,560) wages than the region overall ($31,574).[20]

The core occupations of the Detroit design economy cut across industries. While many of the occupations are found within the 10 core design industries, the majority are part of tangential industries: from health care to media production to food. Within the 41 occupations represented by core design codes, the Detroit City of Design initiative estimates that Detroit City's design economy employs 14,175 people earning a median wage of $34.36 per hour, or approximately $71,469 annually.[21]

TOTAL JOBS BY OCCUPATION 2016

CORE DESIGN

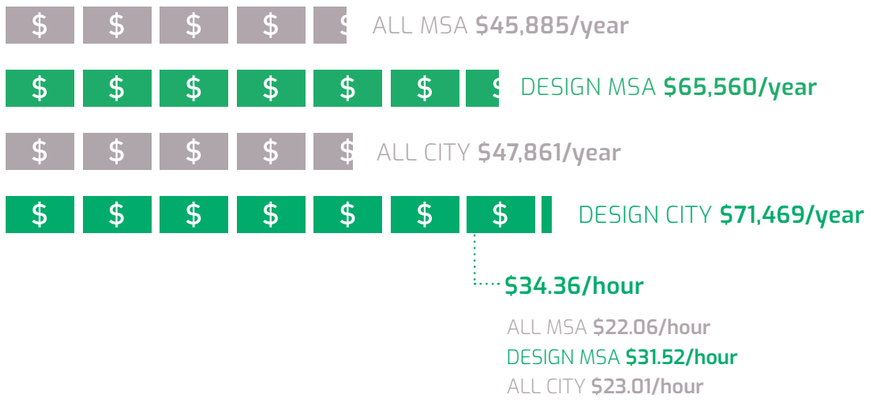


ALL MSA **2,021,690**
DESIGN MSA **150,384**

ALL CITY **241,220**
DESIGN CITY **14,175**

OCCUPATION WAGES median 2016

CORE DESIGN



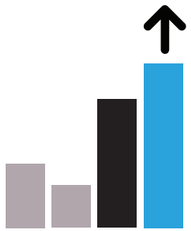
ALL MSA **$45,885/year**
DESIGN MSA **$65,560/year**
ALL CITY **$47,861/year**
DESIGN CITY **$71,469/year**

$34.36/hour

ALL MSA **$22.06/hour**
DESIGN MSA **$31.52/hour**
ALL CITY **$23.01/hour**

OCCUPATION JOB GROWTH 2012-2016

CORE DESIGN



DESIGN CITY **23%**

TOP THREE OCCUPATIONS
Landscape Architects 40%
Commercial and Industrial Designers 36%
Mechanical Engineers 34%

DESIGN MSA **18%**

TOP THREE OCCUPATIONS
Commercial and Industrial Designers 25%
Mechanical Engineers 23%
Architectural and Engineering Managers 21%

ALL CITY **9%**
ALL MSA **6%**

Unlike wages in core design industries, wages of core design occupations tend to be higher in the city proper than in the MSA, averaging close to $5,000 more annually.[22] These occupations registered job growth increases of 23 percent over a five-year period.[23] Additionally, Detroiters who work in core design jobs for Detroit-based firms experienced higher job growth than those employed by businesses outside of Detroit.

The Detroit MSA core design occupations offer a competitive advantage for the region, with mechanical engineers, commercial and industrial designers, architectural and engineering managers, and computer network support specialists among the highest concentration of design occupations in the country clustered within the MSA.[24] Perhaps more important, all of these industries exhibit strong job growth and sales and demand trends that speak to a growing economic cluster ripe for additional investment.

The baseline job requirements for occupations within the Detroit core design economy include a bachelor's degree for an entry-level position, no prior work experience, and no required on-the-job training. Ten of the occupations require an associate's degree or less in educational attainment; managerial level occupations, such as art directors, computer systems managers, and marketing managers, require prior work experience.[25] Many of the core design occupations require strong competencies in math and science, as well as fluency with technology.

PolicyLink's Equity Profile for the City of Detroit examined the relative strength of opportunity for jobs through the Detroit economy. For jobs that require less than a bachelor's degree, but some post-high school education or training, drafters, engineering technicians, and mapping technicians indexed as high-opportunity occupations based on job growth, wages, and total employment.[26]

JOB REQUIREMENTS

CORE DESIGN

ALL CITY AND ALL MSA
High school diploma for entry level, no prior work experience, and short-term on-the-job-training.

DESIGN CITY
Bachelor's for entry level, no prior work experience, and no on-the-job training.

DESIGN MSA
Bachelor's for entry level, no prior work experience, and no on-the-job training.

SELECTED DESIGN ECOSYSTEMS

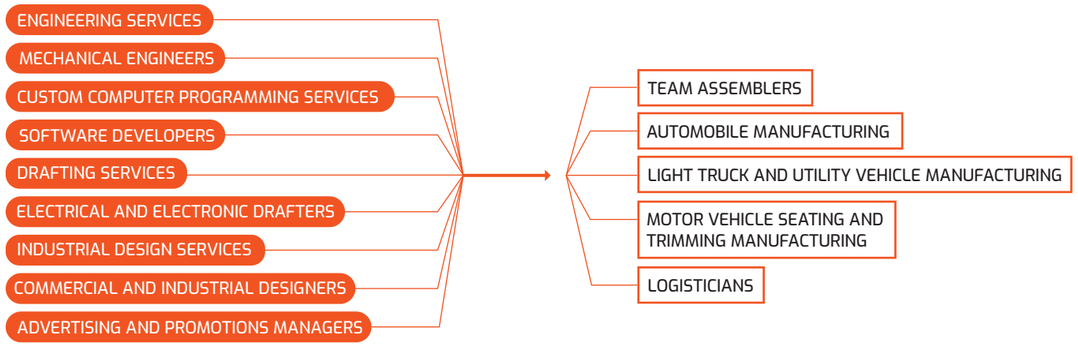
THE CORE DESIGN ECONOMY IS THE SEED OR THE inception point for much of our economy's commercial output; the design ecosystem encompasses the industries and occupations that provide the necessary environment for our proverbial seeds to bear fruit.

In Detroit's case, 129 industries and 64 occupations form the Detroit design ecosystem. These are the occupations and industries that move idea and concept into action. Below are an illustrative set of examples of how Detroit's core design economy seeds various economic sectors and ecosystems to produce the goods and services that provide both joy and utility to the everyday lives of Detroiters. In particular, each of the examples chosen highlights a critical element of Detroit's cultural and economic history, identity, and impact.

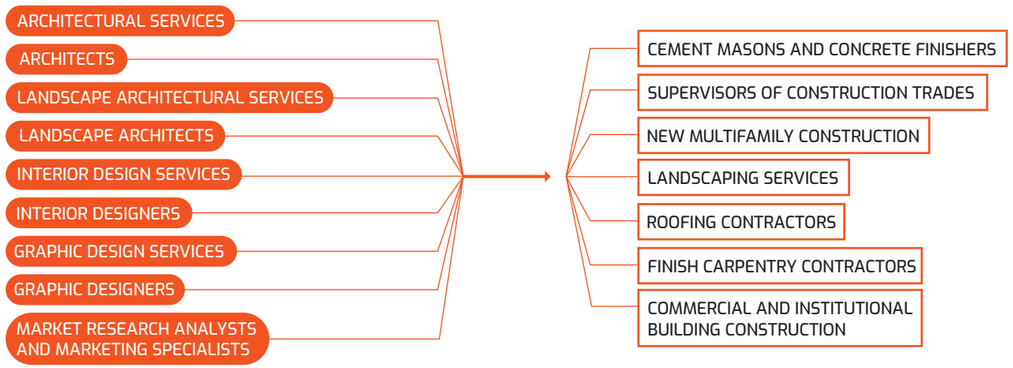
For a full list of the 129 industry and 64 occupation codes that encompass the Detroit design ecosystem, see Appendix A.

THE MOTOR VEHICLE ECOSYSTEM

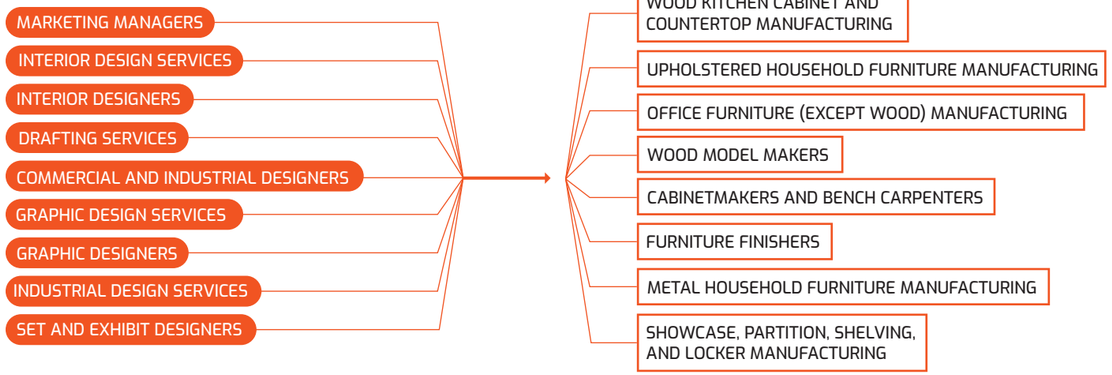
● CORE DESIGN ☐ DESIGN ECOSYSTEM



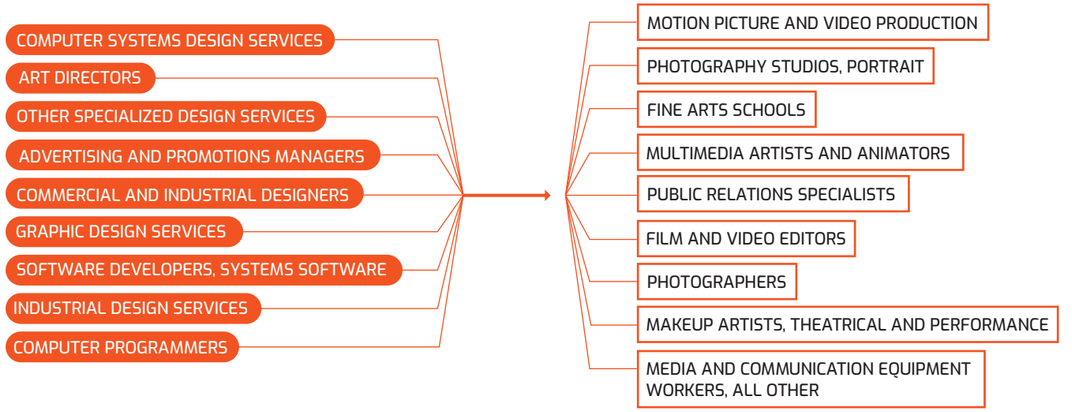
THE BUILT ENVIRONMENT ECOSYSTEM



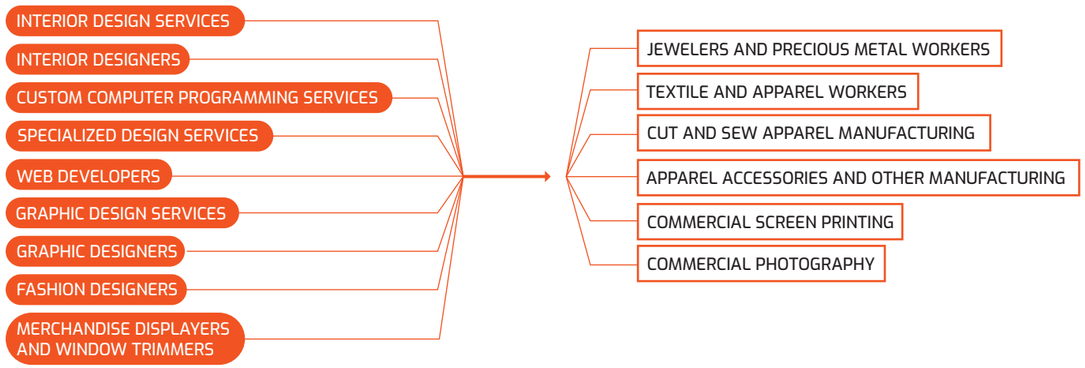
THE FURNITURE ECOSYSTEM



THE PHOTO, FILM, & VIDEO ECOSYSTEM



THE FASHION & ACCESSORIES ECOSYSTEM



THE SUPPORTIVE DESIGN ECOSYSTEM

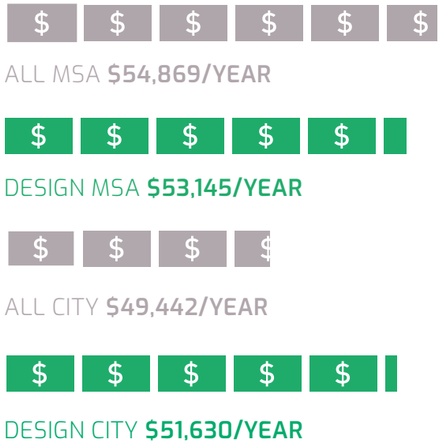
The design ecosystem strives to include the industries and professions that are integral to the creation of a design product, process, or service, although their description may not intuitively read as design-oriented. In other words, these are codes without which a designer's output could not be realized. For example, an architect needs a carpenter just as a fashion designer needs a custom tailor or seamstress.

There are 129 design ecosystem NAICS codes that the Detroit City of Design initiative has included for analysis. These industries include: contractors, construction, manufacturing, training/trade/technical schools, and more. For a more detailed look at these design ecosystem industries, please refer to Appendix A. There are 64 design ecosystem SOC codes included for analysis. These occupations comprise: information security analysts, materials engineers, film and video editors, carpenters, tailors, custom jewelry workers, and many more. For a more detailed look at these occupations, please refer to Appendix A.

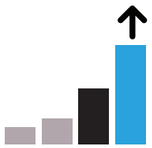
Within the 129 industries represented by the design ecosystem codes, the Detroit City of Design initiative estimates that the extended city of Detroit design ecosystem produced approximately $9 billion in annual revenues in 2016 and directly employs 25,522 people earning a median salary of $51,630 per year. Collectively, these industries experienced job growth increases of 23 percent over the five-year period from 2012 to 2016. Additionally, the extended city of Detroit design ecosystem created over $4 billion in total demand in 2016.[27]

The 64 occupations represented by the design ecosystem codes employ 17,999 people earning a median wage of $31.78 per hour or approximately $66,092 annualized.[28]

INDUSTRY WAGES median 2016
DESIGN ECOSYSTEM



INDUSTRY JOB GROWTH 2012-16
DESIGN ECOSYSTEM



ALL CITY **4%**
ALL MSA **6%**

DESIGN CITY **23%**

Computer Facilities Management Services 69%
Petroleum Lubricating Oil and Grease Manufacturing 47%
Motor Vehicle Gasoline Engine and Engine Parts Manufacturing 37%

DESIGN MSA **13%**

Household Furniture* Manufacturing 77%
Computer Facilities Management Services 65%
Wood Window and Door Manufacturing 61%
* except wood/metal

INDUSTRY DEMAND 2016
DESIGN ECOSYSTEM

DESIGN CITY **$4 BILLION**

TOP THREE INDUSTRIES
Finish Carpentry Contractors
$245.9 million
Small Electrical Appliance Manufacturing
$233.8 million
Tile and Terrazzo Contractors
$219.8 million

DESIGN MSA **$51 BILLION**

TOP THREE INDUSTRIES
Motor Vehicle Metal Stamping
$4.5 billion
Motor Vehicle Seating and Interior Trim Manufacturing
$4.1 billion
Motor Vehicle Transmission and Power Train Parts Manufacturing
$2.8 billion

INDUSTRY REVENUE 2016
DESIGN ECOSYSTEM

DESIGN CITY **$9 BILLION**

TOP THREE INDUSTRIES
Household Furniture* Manufacturing
$260.2 million
Highway, Street, and Bridge Construction
$259.9 million
Commercial Printing
$199.9 million
* except wood/metal

DESIGN MSA **$123 BILLION**

TOP THREE INDUSTRIES
Light Truck and Utility Vehicle Manufacturing
$29 billion
Automobile Manufacturing
$19 billion
Motor Vehicle Transmission and Power Train Parts Manufacturing
$12 billion

While core design industries grew faster in the MSA as a whole than in the city proper, design ecosystem industry job growth (23 percent) in the city of Detroit far outpaces that of the broader metropolitan area (13 percent). Yet design ecosystem industries in the city itself tend to pay far less than similar jobs in the MSA. Average earnings in the city are just over $44,300 per year, compared to $70,000 in the broader region. The reverse is true of design ecosystem occupations, where workers within city limits earn an annual average of nearly $20,000 more than the MSA average. Job growth for design ecosystem occupations slightly outpaces the region, 12 percent to 8 percent, respectively.[29] The Detroit Equity Profile cited supervisors of construction and extraction workers, supervisors of production workers, and assemblers and fabricators as jobs of high opportunity within the regional Detroit economy.[30]

The regional demand for design ecosystem firms sits at $51 billion, which is a significant slice of the regional economy pie with regional GDP for 2017 at $252.6 billion.[31] As such, the Detroit core design economy's impact is amplified through its supportive ecosystem. The diversity of industries and occupations within Detroit's design ecosystem are robust in size, diverse in opportunities for job entry and mobility, and reach beyond the design and creative economy into the general regional economy as well.

DETROIT BUSINESS COMPOSITION

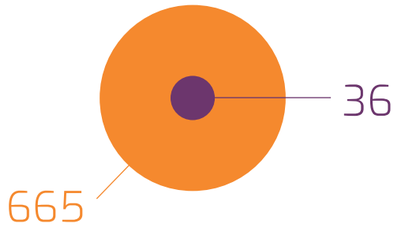
Firms included within this analysis reported their primary industry as one of the core 10. Many firms in the design community provide products and services that would fall under the auspices of core industries but are not primary functions of their firm's business. As such, the clear majority of firms in the Detroit core design economy are micro-businesses with fewer than 10 employees, with 114 firms operating as one-person shops.[32] Interviews with the Detroit design community affirm this composition, as freelancers, independent contractors, and small start-up enterprises are a large and critical engine for Detroit design output.

NUMBER OF FIRMS BY INDUSTRY[33]

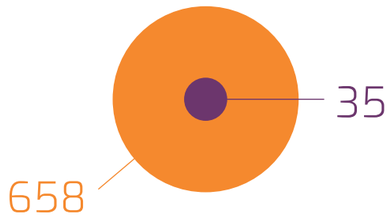
● DETROIT CITY ● DESIGN MSA

Landscape Architectural Services

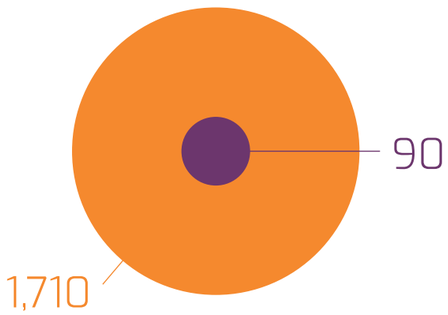
Interior Design Services



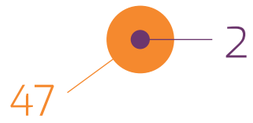
Custom Computer Programming Services



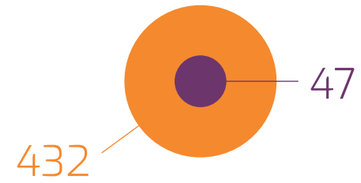
Engineering Services



Industrial Design Services



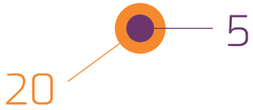
Architectural Services



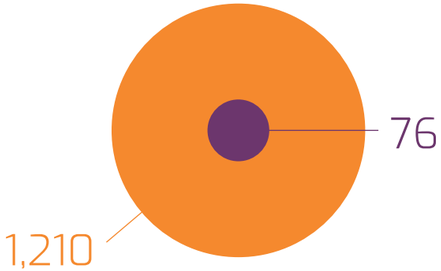
Drafting Services

Graphic Design Services

Other Specialized Design Services



Computer Systems Design Services



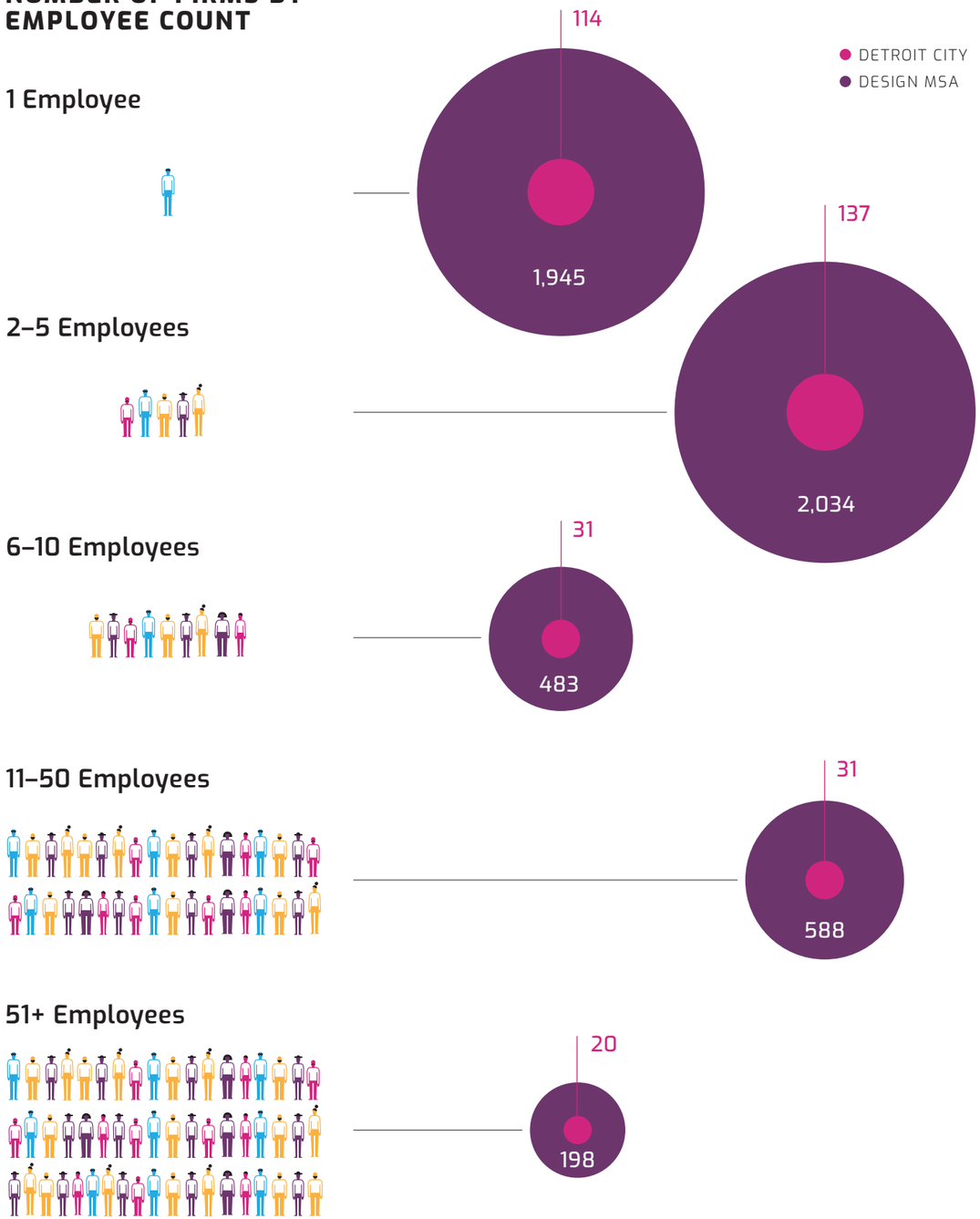
Total Number of Firms (Detroit City)

364

Total Number of Firms (Design MSA)

5,399

NUMBER OF FIRMS BY EMPLOYEE COUNT



Graphic does not include firms with unknown employee count

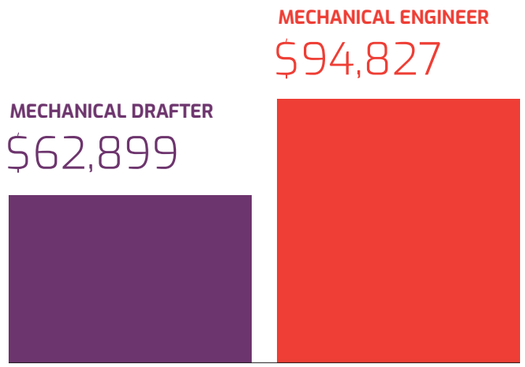
THE DESIGN ECONOMY ALL-STARS*

The following sections highlights a smattering of design occupations that show promise in Detroit. By looking at job growth, industry concentration, wages and salaries, and education and training requirements, this section outlines jobs that show the greatest promise for building an inclusive workforce across the city and region's design industries. The first group looks at design occupations whose salaries, entry requirements, and job growth are inherently inclusive. The second group looks at jobs that demonstrate low barriers to entry, though they are not growing as quickly in Detroit. The last group looks at design occupations experiencing rapid growth, but require substantial education and training credentials.

INCLUSIVE DESIGN MVPS

The following are examples of design occupations that are highly inclusive. They demonstrate low barriers to entry with little to no training required. Steady job growth in the Detroit region suggests opportunities for upward mobility.

Mechanical Drafter



- Associate's degree or equivalent
- No additional training for entry-level
- No work experience for entry-level[35]

- No additional training for entry-level
- No work experience for entry-level
- Michigan has highest concentration of these jobs in US[36]

According to the Bureau of Labor Statistics, a mechanical drafter is charged with preparing detailed working diagrams of machinery and mechanical devices. The tool of choice for the modern mechanical drafter is computer-aided design software, or CAD. Mechanical drafters may work within a larger engineering or architectural firm or in-house at an automotive, structural metals, aerospace, or general-purpose machinery manufacturing company. Local community colleges and technical schools offer coursework and associate's degrees in mechanical drafting, which will teach students utilization of CAD as well as the mathematical basis behind the technology.[34]

$30.24 median per hour salary
$62,899 annualized salary

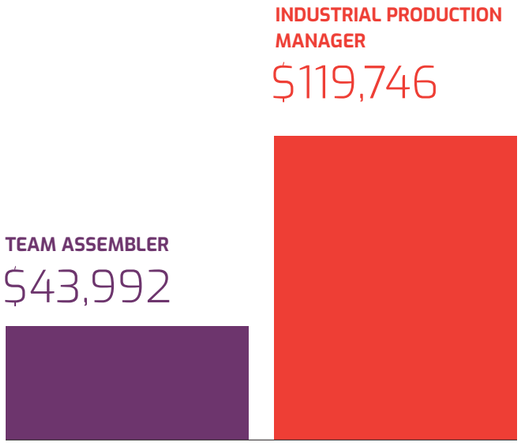
37% job growth

2nd highest concentration of jobs in US located in Michigan

Entry-level position requires associate's degree

No additional training or work experience

*All data for this section, unless otherwise specified, is for the city of Detroit only.



- High school diploma or equivalent
- No additional training for entry-level
- No previous work experience[40]

- Bachelor's degree
- No additional training
- Michigan has 3rd highest employment level of this occupation in US[41]

Team Assembler

A team assembler, also known as an advanced manufacturing associate, assembly machine operator, or just assembler, typically works as part of a team having the responsibility for assembling an entire product or component of a product. Team assemblers can perform all the tasks conducted by the team in the assembly process and rotate through all the tasks, rather than specializing in just one.[37] Michigan has the Highest concentration of team assembly positions in the United States, with the Detroit MSA as the No. 1 metropolitan region for this job. A high school diploma is the only hard requirement for entry-level[38] positions; the average team assembly position is looking for two-plus years on the job and any specialized training is a plus.[39]

$21.15 median per hour salary
$43,992 annualized salary

24% job growth

Highest concentration of jobs in US located in Michigan

Entry-level position requires high school diploma

No additional training or work experience

Web Developer

$26.06 median per hour salary
$54,205 annualized salary

20% job growth

Entry-level position requires associate's degree

No additional training or work experience

EDUCATIONAL ATTAINMENT AND JOB TRAINING ALL-STARS

Although the following occupations are not growing as fast in the Detroit region, they have low barriers to entry and require little training to secure employment. Coupled with high wages, these jobs, some of which are not strictly core design occupations, provide necessary support for the design ecosystem.

- Associate's degree or equivalent
- No additional training for entry-level
- No prior work experience for entry-level[42]

- Bachelor's degree
- No additional training
- Five years of work experience[43]

Computer Network Support Specialist

A computer network support specialist (CNSS) analyzes, tests, troubleshoots, and evaluates existing network systems. The average day for a CNSS also includes regular server maintenance and repair, implementing security measures for computers and other information systems, as well as managing any help desk requests from clients or co-workers. As with team assembly and manufacturing, computer network support specialists design, build, and maintain the infrastructure for the creative and innovation economies.[44]

The concentration of computer network support specialists in Michigan is in the top quartile of states and the Detroit MSA in the top 10 of metropolitan regions. An aspiring CNSS will need an associate's degree to begin. While no additional training is required, as technology evolves so will the tools and knowhow needed to fix it, so continual training and professional development are needed, but often come with the job.[45]

$30.73 median per hour salary
$63,918 annualized salary

Entry-level position requires associate's degree

No additional training or work experience

Merchandise Displayer and Window Trimmer

$10.94 median per hour salary
$22,755 annualized salary

5th highest concentration of jobs in US located in Michigan

Entry-level position requires associate's degree

No additional training or work experience

CARPENTER

$43,992

- High school diploma or equivalent
- No additional training
- No prior work experience[46]

FIRST LINE SUPERVISOR OF CONSTRUCTION TRADES

$58,864

- High school diploma or equivalent
- No additional training
- Five years of work experience[47]

Carpenter

$21.45 median per hour salary
$44,616 annualized salary

Highest concentration of jobs in US located in Michigan

Entry-level position requires high school diploma

No prior work experience required for entry-level

JOB GROWTH CHAMPIONS

The following occupations are poised for significant growth in Detroit and Michigan. There are also large concentrations of these jobs in the region, providing ample opportunities for employment. However, there are barriers, including college education and training requirements, to participating in this workforce.

Commercial and Industrial Designer

Commercial and industrial designers combine the fields of art, business, and engineering to design the products people use every day. These designers are responsible for the style, function, quality, and safety of almost every manufactured good. Designers and their teams handle many parts of the product creation value chain: research and ideation, initial design and prototyping, cost estimation and engineering, and finally usability and safety testing to determine product viability.[48]

Commercial and industrial design is exhibiting aggressive job growth, at 46 percent annually from 2012 to 2016. As expected, the vast majority of industries housing commercial and industrial design jobs are in the core design industries, but many of the manufacturing industries, including furniture and home furnishings, motor vehicle, and footwear have designers in-house to service their product design needs. A bachelor's degree in industrial design, architecture, or engineering is required for entry-level jobs. Increased emphasis on the business and commercialization aspects of product design is sending designers back to school for their master's degree, oftentimes in business, finance, or marketing.[49]

$39.97 median per hour salary
$83,138 annualized salary

46% job growth

Highest concentration of jobs in US located in Michigan[50]

Logistician

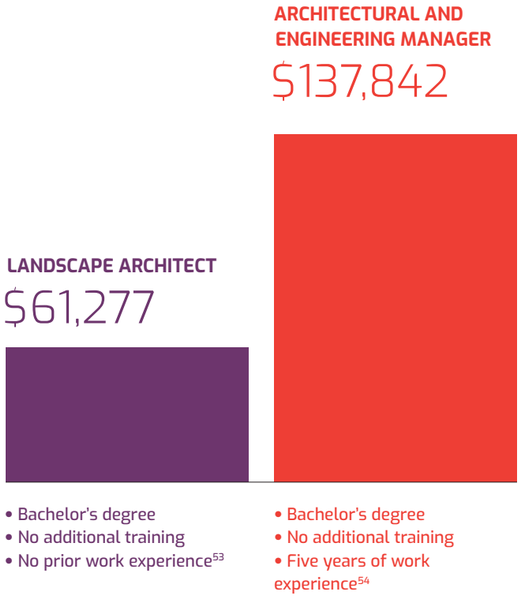
Logisticians analyze and coordinate an organization's supply chain: the system that moves a product from supplier to consumer. They manage the entire life cycle of a product from design to disposal, including product acquisition, allocation, and delivery. The nature of the job is to optimize processes.[51]

While logisticians work in virtually every sector, a quarter of all logisticians work in manufacturing. Entry-level positions typically require a bachelor's degree, although some logistician jobs are available to professionals with an associate's degree. Certifications are a plus, especially when the client is the federal government, which is the second largest sector of employment. Michigan and the Detroit MSA are hubs for logistician jobs with the fifth highest locational concentration in the US.[52]

$42.34 median per hour salary
$88,067 annualized salary

24% job growth

3rd highest employment level in US located in Michigan



Landscape Architect

$29.46 median per hour salary
$61,277 annualized salary

42% job growth

ENDNOTES

1 (Economic Modeling Specialists Inc., 2018; U.S. Bureau of Labor Statistics, 2017)

2 (Economic Modeling Specialists Inc., 2018; U.S. Bureau of Labor Statistics, 2017)

3 (U.S. Bureau of Labor Statistics, 2017; Economic Modeling Specialists Inc., 2018)

4 (Economic Modeling Specialists Inc., 2018; U.S. Bureau of Labor Statistics, 2017)

5 (U.S. Bureau of Labor Statistics, 2017; Economic Modeling Specialists Inc., 2018)

6 (Economic Modeling Specialists Inc., 2018; U.S. Bureau of Labor Statistics, 2017)

7 (Economic Modeling Specialists Inc., 2018; U.S. Bureau of Labor Statistics, 2017)

8 (Emsi Detroit Industry Table, 2017; Emsi Detroit Occupation Table, 2017; Emsi Detroit MSA Industry Table, 2017; Emsi Detroit MSA Occupation Table, 2017)

9 (Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017)

10 (Emsi Detroit Occupation Table, 2017)

11 (LexisNexis Detroit Company List, 2018)

12 (Emsi Detroit Industry Table, 2017)

13 (Emsi Detroit Industry Table, 2017)

14 (Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017)

15 (Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017)

16 (Emsi Detroit Industry Table, 2017; LexisNexis Detroit Company List, 2018)

17 (LexisNexis Detroit Company List, 2018; Lexis Nexis Detroit MSA Company List, 2018)

18 (Detroit Regional Chamber, 2017)

19 (Detroit Regional Chamber, 2017)

20 (Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017)

21 (Emsi Detroit Occupation Table, 2017)

22 (Emsi Detroit Occupation Table, 2017; Emsi Detroit MSA Occupation Table, 2017)

23 (Emsi Detroit Occupation Table, 2017)

24 (Bureau of Labor Statistics, 2017)

25 (Bureau of Labor Statistics, 2017)

26 (PolicyLink, 2017)

27 (Emsi Detroit Occupation Table, 2017)

28 (msi Detroit Occupation Table, 2017; Emsi Detroit MSA Occupation Table, 2017)

29 (Emsi Detroit Occupation Table, 2017; Emsi Detroit MSA Occupation Table, 2017)

30 (PolicyLink, 2017)

31 (Emsi Detroit MSA Occupation Table, 2017)

32 (LexisNexis Detroit Company List, 2018; LexisNexis Detroit MSA Company List, 2018)

33 (LexisNexis Detroit Company List, 2018; LexisNexis Detroit MSA Company List, 2018)

34 (Bureau of Labor Statistics, 2017)

35 Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017; Bureau of Labor Statistics, 2017)

36 (Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017; Bureau of Labor Statistics, 2017)

37 (Bureau of Labor Statistics, 2017)

38 (Emsi Detroit MSA Occupation Table, 2017)

39 (Bureau of Labor Statistics, 2017)

40 (Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017; Bureau of Labor Statistics, 2017)

41 (Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017; Bureau of Labor Statistics, 2017)

42 (Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017; Bureau of Labor Statistics, 2017)

43 (Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017; Bureau of Labor Statistics, 2017)

44 (Bureau of Labor Statistics)

45 (Bureau of Labor Statistics, 2017)

46 (Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017; Bureau of Labor Statistics, 2017)

47 (Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017; Bureau of Labor Statistics, 2017)

48 (Bureau of Labor Statistics, 2017)

49 (Bureau of Labor Statistics)

50 (Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017)

51 (Bureau of Labor Statistics, 2017)

52 (Bureau of Labor Statistics, 2017)

53 (Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017; Bureau of Labor Statistics, 2017)

54 (Emsi Detroit Industry Table, 2017; Emsi Detroit MSA Industry Table, 2017; Bureau of Labor Statistics, 2017)

CHAPTER 4

Understanding Detroit's Context

An installation by Markus Linnenbrink/Nick Gelpi at the grand opening of Wasserman Projects during Eastern Market After Dark 2016. Photo credit: Photo by Desmond Love. Copyright Design Core Detroit 2018.

LIKE MANY PLACES, DETROIT MUST FACE ITS PAST, PRESENT, AND FUTURE CHALLENGES.
Some of these issues are widespread across geographies; others are native to Detroit. Although the following list of topics is not exhaustive, over the course of the Visioning Process they were identified as barriers to inclusive growth in Detroit. There are also challenges that can be addressed, or even resolved, through inclusive design practices.

UNIVERSAL TRENDS

Growing wealth gap

In recent decades, income inequality has increased in nearly all countries, but at different speeds. Since 1980, it has increased rapidly in North America, China, India, and Russia, and grown moderately in Europe.[1] Today, over 70 percent of the world's adults own less than $10,000 in wealth.[2] In the United States, between 1963 and 2016. families in the bottom 10 percentile of the wealth distribution went from having no wealth on average to being about $1,000 in debt. Comparatively, families in the top ten percent increased their wealth fivefold. A study by the Urban Institute attributes this gap to income inequality. Looked at by race and ethnicity, the gap is even starker: In 2016, white family wealth was seven times greater than black family wealth.[3]

Vulnerable workforce

Within the next 20 years, 45 percent of jobs in the United States will be automated.[4] Compared to other developed countries, the risk of automation is significantly higher in the United States, where the majority of workers spend a much greater proportion of their time engaged in manual tasks.[5] According to studies by Oxford University, the onus is on the public sector, working with employers and education providers, to train the workforce in the skills needed to remain competitive and resilient in the face of automation.[6] Cities must also diversify their industries to offset job losses in some sectors. Moving forward, cities with talent that is specialized in skilled industries, including information technology, professional services, and creative industries, may avoid the job losses associated with automation.[7]

Limited access to capital

In its 2013 Creative Economy Report, UNESCO stated that creative industries face more challenges securing financing and raising funds than other sectors, making it difficult to obtain loans, advances, and other services from banks.[8] The report cites the sector's high risk and its lack of tangible assets as the major barriers to capital. Yet compared to other countries, the United States is ahead of the curve. According to a report published by the British Council in 2014, the United States is one of a small number of countries where investors are more prepared to back new ideas, as they are willing to see failure as a valuable and sometimes necessary learning experience.[9]

Policy and regulatory restrictions

Few governments employ the right mix of regulatory tools to attract and grow creative enterprises, stymieing opportunities for other, tangential sectors.[10] Yet procurement standards, import and export quotas, and incentives to attract private funders can jumpstart entire economies.[11] Research also shows that across the board, governments must rethink permitting and licensing processes, which are challenging to navigate, costly, and time-intensive. Beyond regulation and incentives, the World Economic Forum notes that governments should invest in their national infrastructure, including improved transit to facilitate trade and expanded internet access to open new markets for goods and services.[12]

DETROIT'S CHALLENGES

Unemployment

Currently, Detroit has 30 jobs per 100 residents. Although unemployment rates in Detroit have decreased in the past decade, Detroit needs to almost double its job base to provide the same number of jobs per resident as its counterparts across the United States. According to Detroit Future City, 33 percent of jobs in Detroit are held by African Americans, down from 36 percent in 2010; unemployment rates among African Americans and Hispanics remain disproportionately low. This is partly a result of spatial mismatch: Census data reveals that over 112,000 people who live in Detroit work outside the city limits, while only 30 percent of Detroiters work within city limits. The lack of jobs is visible in Detroit's poverty rates. More than 40 percent of Detroit's residents, including 57 percent of children, live below the federal poverty line.[13]

Aging infrastructure

From housing to roads to water mains, Detroit's infrastructure shows signs of aging. In 2014, Detroit had 40,077 blighted structures and over 38,000 that showed signs of decay and blight.[14] Of these, 92 percent were single- and multifamily homes. According to the city, Detroit has 2,700 miles of water lines that need replacing.[15] A 2017 report by the Detroit Regional Chamber states that 20 percent of roads are in poor condition, and the number of bridges in poor condition will increase 50 percent by 2023.[16]

Although the number of uninsured adults decreased by 54 percent between 2010 and 2015, 24 percent of Detroiters are unable to access health care due to cost.[19]

Vacant land

Detroit has more vacant land per capita than any other American city—more than 24 square miles, not including parks—yet it has the least amount of parkland. According to Detroit Future City, this represents more than 120,000 parcels that were once housing or commercial facilities, most of which are interspersed among the city's neighborhoods. A wide variety of small-scale and neighborhood-scale efforts are underway by the city of Detroit, community groups, foundation partners, and others. For instance, Detroit Future City is now in its third year of the Field Guide to Working with Lots program, which provides grants to residents, businesses, and nonprofit organizations to activate vacant land as a way to mitigate water runoff, contribute to environmental sustainability, and beautify Detroit's neighborhoods.[17]

Low education rates

Detroiters have lower levels of formal education compared to the rest of the region. According to Detroit Future City, less than a quarter of the population ages 25 and older have an associate's degree or higher. Twenty-two percent of Detroit residents ages 25 or older have not completed high school. Yet high school graduation rates in Detroit are on the rise: In 2007, 58 percent of students graduated from Detroit public schools; in 2016, that number reached 78 percent, with 41 percent attending college.[18]

Health Disparities

High poverty rates, coupled with high un- and underemployment rates, have contributed to significant health disparities. Detroit's infant mortality rate, for instance, is twice that of Michigan and its rate of HIV infections is more than double that of the country at large.

Each year, Art Van Furniture invites local artists, including Sydney Brown, picture here, to turn their furniture into art at Eastern Market After Dark. Photo credit: Photo by Do Good Work. Copyright Design Core Detroit 2018.

DETROIT'S ADVANTAGES

Design has been a proven tool for addressing these types of issues on a small and large scale in cities throughout the world.

In the Netherlands, The Mobile City, a research group that studies the interaction between digital technologies and urban design, launched Rezone Playful Interventions, a design-driven activity to generate interest in vacant buildings. The initiative brought together architects and game designers to create role-playing activities that empower residents and stakeholders to co-create new uses for the sites.[20]

In 2016, a New York City-based technology start-up launched FreshEBT, a mobile app that helps food stamp recipients manage their benefits. The app makes what was a notoriously complicated and time-consuming process quick and easy for individuals who are eligible to receive SNAP benefits. The app also tracks SNAP spending, allowing the 45 million families enrolled in the program, over half of which run out of funds by the end of the first week, to manage their benefits. To date, over 1 million people facing hunger use the app each month.[21]

Detroit is uniquely positioned to solve the problems facing its communities by leveraging its design assets and the broader assets of the region. The city's rich industrial heritage coupled with the diversity of its talent prepares Detroit to use the City of Design designation as a catalyst for economic renewal.

PROFILE

MARIA LUISA ROSSI

Chair of MFA in Integrated Design
College of Creative Studies

I moved to Detroit in 2008 when it was rows of uncultivated lots, sandwiched by suffering or semi-collapsed single-family houses. Gazing out of the car window, I wondered why the United States, with its positive energy to reinvent, would abandon this city. I kept seeing shabby, dilapidated areas that looked like war zones. But the worst part was witnessing the reaction of my many American friends who were horrified at the thought of me moving to Detroit.

At first, I thought, what am I doing here? I've been here for 10 years, and I think I've found more than something to do. I built the Integrated Design program, which brings together an integrated style of learning to contribute towards society, from scratch. Under my direction, students have learned how to improve the nonprofit donor experience; they have designed multi-channel experiences to achieve better health and well-being; and they are working to improve mobility for everyone in Detroit through human-centered design research and mobility-scenario design.

PROFILE

NINA CHO

Product designer

Graduate of MFA in 3D Design
Cranbrook Academy of Art

Detroit is really interesting, and yet so unfamiliar to me. Cranbrook is located near Detroit, so it happened naturally. Alumni from Cranbrook encouraged me to pursue my practice here in Detroit, to take a studio space and get involved in the growing community when I was starting. Also, Detroit has many great fabrication facilities. It was a great advantage in realizing my idea for my bent metal work. Detroit is still affordable for artists. It's the only city where young artists and designers own their living and studio spaces. I've had the chance to exhibit and sell my work nationally and internationally while creating my work here.

It is very exciting to be living and working alongside the current renaissance of Detroit. It's going through big changes and therefore, in a sense, it's at a creative peak. I'm a new face to the city but still part of its revitalization. There's a growing environment for designers and artists starting up their practices and careers here. I see many people moving to Detroit from other cities or some returning to Detroit. Affordable space offers flexibility and freedom for young creatives to invest their time and money on other important factors more freely.

Designer Jack Craig combines his studio with his living space in the Banglatown neighborhood in order to keep his operating expenses low. Photo by PD Rearick. Copyright Design Core Detroit 2018.

TALENT

The Detroit region is home to world-class design institutions including six major colleges and universities and more than 50 galleries and cultural institutions. Collectively, these institutions have bred a range of talented designers, giving way to 364 design firms in the city and 5,4981 throughout the metropolitan area. The saturation of design talent in Detroit and its neighboring geographies provides an opportunity to export talent, products, and services locally, nationally, and internationally, offsetting some of the challenges facing the region's economy.

For instance, a larger creative pool could help alleviate the pressures of automation by training the workforce in trades and crafts that rely on creative thinking over rote, manual labor. In time, Detroit's creative talent can support other industries, including health care and engineering, which employs over 24,000 people in the region.

LOW BARRIER TO ENTRY

According to Drawing Detroit, in 2016 about 25 percent of business sites sat vacant, with pockets in Northern Detroit experiencing higher rates.[22] This has contributed to vacancies across other building types, including storefronts, manufacturing facilities, and industrial sites.[23] Although they pose a challenge to density in Detroit, vacancies have allowed for new design typologies to be tested—from One Custom City's community screen-printing shop to Recycle Here!, Detroit's grassroots, city-wide recycling plant.

Programs like Motor City Match, an initiative by Detroit Economic Growth Corporation that connects new and expanding businesses in need of storefronts with real estate opportunities, have also leveraged the city's vacant sites to catalyze its business community, awarding over 100 grants since its launch in 2015.[24]

Housing also remains more affordable in Detroit than in surrounding regions. Detroit Future City reports that despite rental rates increasing in Downtown and Midtown Detroit, the median gross rent for two-bedroom units hovers around $750. Although still unattainable for many low-income Detroiters, this is $130 less than the rest of the region.[25]

INNOVATION VALUE CHAIN

Design is at the heart of Detroit's economic supply and value chains, and it offers a competitive advantage against other regions. When one typically thinks about the "innovation economy", the focus lies in the first part of the value chain: research, discovery, and ideation. Detroit's strengths lie in the next phases of the innovation process: the ability to prototype and commercialize ideas. In a recent study conducted by Mass Economics, the Detroit Metro Statistical Area (MSA) was identified as a top five region in the United States in terms of industry cluster concentration within the prototyping industries, which many of Detroit's core design industries and occupations fall under.[26]

Not only are the industrial design, engineering, and computer systems design industries all concentrated above the national average in the Detroit region but industrial design and engineering exhibit strong five-year trending with regard to job growth, at 57 percent and 30 percent, respectively.[27] These two industries are critical parts of the product prototyping phase for many industries throughout the larger economy. Prototypes may be physical goods or models, plans, algorithms, or other processes that generate value.

The Detroit MSA also has a strong commercialization factor, which is necessary to formally bring a product, service, or process to market. Some of the design ecosystem industries and occupations are part of this section of the innovation value chain. Detroit's manufacturing heritage makes it possible to produce and scale products on a significant order of magnitude. The city's robust manufacturing ecosystem is proof of its potential: Between 2015 and 2016, most of Detroit's manufacturing firms reported growth. Today, the manufacturing sector employs the second largest workforce in the region, boasting a total of 236,000 employees, who are paid an average of $70,000 per year.[28]

Not only are the industrial design, engineering, and computer systems design industries all concentrated above the national average in the Detroit region but industrial design and engineering exhibit strong five-year trending with regard to job growth, at 57 percent and 30 percent, respectively.

Detroit, city and regional, physical infrastructure and talent assets create the conditions for a robust design-driven supply chain. Detroit is nestled between three major interstates – I-94, I-95, and I-75 – and is home to major shipping ports, four Class I railroads, the busiest commercial border crossing to Canada, making it possible to source and distribute a wide range of materials.

Fashion, mobility, next-generation materials production, and vertically integrated computer and network system infrastructure all are areas for investments in business attraction and facility infrastructure. They also provide job opportunities on the high, mid, and low-ends of the educational attainment spectrum, allowing for true job-skilling and career ladder opportunities for all residents throughout the region.[29] Institutions like Lawrence Technological University see this need and have developed programs to help small manufacturers and hardware entrepreneurs scale. With increased focus and coordination on this part of the innovation value chain, the city and region would benefit.

DIVERSITY

By 2044, the majority of people in the United States will be people of color.[30] In 2016, the United States was home to 8 million minority-owned businesses, up from 5.8 million in 2017, a 38 percent increase. The best way for the United States to realize its full potential is to build a 21st century economy that engages more women and minorities as creators, founders, and owners.[31] Detroit is at an advantage. According to a report by McKinsey & Company, companies in the top quartile for racial and ethnic diversity are 35 percent more likely to have financial returns above their respective national industry medians.[32]

African American and Hispanic consumers spend $1.2 trillion and $1.3 trillion, respectively, each year, while Asian Americans spend $825 billion annually.

According to Detroit Future City, 80 percent of Detroit's population is African American, and although the city's overall population has declined since 2000, the number of Hispanic residents has increased.[33] African American and Hispanic consumers spend $1.2 trillion and $1.3 trillion, respectively, each year, while Asian Americans spend $825 billion annually.[34] With accelerating population growth for Hispanics and Asian Americans, along with increasing incomes for all three groups, their combined purchasing power will only increase over time.

In 2012, African Americans in Detroit were 15 percent more likely than their national counterparts to be self-employed.

With the creation of the Entrepreneurs of Color Fund at Detroit Development Fund, some of these efforts are already bearing fruit. Of the self-employed firms in Detroit, 74 percent are owned by African Americans. In 2012, African Americans in Detroit were 15 percent more likely than their national counterparts to be self-employed.[35] Though minority-owned business are far less likely to be employers—only 4 percent of African American-owned firms have at least one paid employee—a survey by the Department of Small Business Services reported that between 2007 and 2012, two million minority-owned businesses were created, while one million nonminority-owned enterprises closed.[36]

The city's diversity is also manifested in Detroit's community-driven approach to change. In the 1970s, when Detroit began to experience the deterioration of its public infrastructure, communities turned inward to devise creative, people-driven solutions to the problems they faced. Over the years, Detroit has earned a reputation as a city that is resourceful and resilient. One example is the Equitable Internet Initiative, led by the Detroit Community Technology Project, which aims to connect 40 percent of Detroiters without internet access through a community mesh network that bypasses traditional telecommunications wiring. Through the lens that access to communication is a human right, the Initiative also trains community members to use the services delivered over the internet.[37]

The Detroit region is home to world-class design institutions including six major colleges and universities and more than 50 galleries and cultural institutions.

Partnerships like the one between College for Creative Studies and Henry Ford Innovation Institute have led to advancements in medical product design, like the "Model G" hospital gown. Conceived by Michael Forbes while he was still a student, the gown is now distributed in hospitals throughout the country. Photo courtesy of Michael Forbes.

Self-taught designer and social activist

PROFILE

SYRI SIMPSON

I love to create with fiber and I have an online craft supply store. I became an "activist" in grade school. Fiber arts and social change combined when I entered the Detroit public school system in 1966 and joined students who wanted their African American history acknowledged and taught. My first creative business was designing and sewing dashikis, a popular statement of identity and defiance. I lost my customer base when I was expelled from my school in 1968 for leaving mid-term to march in Dr. King's Poor People's Campaign.

As I look at how unions enabled women to design a life based on their dreams and at how we are being dragged back from those forward steps, my inspiration is to share the satisfaction of creativity with that of earning. I work with people like my community's Oakland Avenue Urban Farm who are designing a harmonious and sustainable community and teaching our young people to contribute to its design. I always knew something great was being built in the North End. I am proud to be part of designing it.

An exhibition from the Bento furniture workshop at the Brightmoor Maker-space during the 2017 Detroit Design Festival. Photo by Do Good Work. Copyright Design Core 2018.

ENDNOTES

1 (Alvarado, World Inequality Report 2018)

2 (Credit Suisse Research Institute, 2017)

3 (Urban Institute, 2017)

4 (Frey, 2016)

5 (Berriman, 2017)

6 (Frey, 2016)

7 (Chui, 2016)

8 (UNESCO, 2013)

9 (Newbigin, 2014)

10 (Brown, 2016)

11 (Restrepo, 2013)

12 (Brown, 2016)

13 (Detroit Future City, 2017)

14 (Detroit Future City, 2017)

15 (Michigan Radio Newsroom, 2017)

16 (Lewis, 2017)

17 (Detroit Future City, 2018)

18 (Detroit Future City, 2017)

19 (Detroit Future City, 2017)

20 (The Mobile City, 2013)

21 (Field, 2017)

22 (Drawing Detroit, 2016)

23 (Detroit Future City, 2017)

24 (Motor City Match , 2018)

25 (Detroit Future City, 2017)

26 (Lynch, 2016)

27 EMSI,2017

28 "Detroit's Manufacturing Economy: Initial Snapshot." 2018. (Urban Manufacturing Alliance, 2018) Internal document published 19 December 2017.

29 EMSI, 2017

30 (Chappell, 2017)

31 (Castillo, 2016)

32 (Hunt, 2015)

33 (Detroit Future City, 2017)

34 (Nielsen, 2016)

35 (Detroit Future City, 2012)

36 (McManus, 2016)

37 (Allied Media, 2016)

CHAPTER 5

Why Inclusive Design Matters

Chloe Davis, a senior at Henry Ford Academy: School for Creative Studies, shares her perspective in a workshop exploring mobility during the 2017 Detroit City of Design Summit. Photo credit: Desmond Love. Photo by Do Good Work. Copyright Design Core Detroit 2018.

DEFINING INCLUSIVE DESIGN

INCLUSIVE DESIGN takes into consideration the spectrum of human diversity and the individual experiences of each person to create solutions that have a broader social impact.[1]

By designing for people who may seem like the exception in society, we can design places, products, services, and systems that work for all people in society.

As Detroit embarks on its 10-year designation, it looks to inclusive design to reimagine the city's growth. This can be achieved by employing inclusive processes and developing accessible products, places, and outcomes.

INCLUSIVE PROCESS

For a design process to be inclusive, it must adopt human-centered practices. Inclusive design processes begin with a discovery phase that considers the problems and the circumstances of people with different abilities, followed by the exploration of possibilities and solutions that effectively and positively impact people, businesses, and society.[2] The design teams involved in this process should be as diverse as possible and include individuals whose lived experiences reflect those on the margins because of age, gender, race, physical and mental abilities, or socioeconomic status.[3]

INCLUSIVE PRODUCTS, PLACES, AND OUTCOMES

When designing inclusive products, places, and outcomes, it is not enough to simply design for the typical user. Inclusive product design focuses on the user with the greatest limitations first, so it is far more likely to work for everyone.[4]

VALUES THAT LEAD TO INCLUSIVE OUTCOMES

The skills of expert designers can become more accessible by embracing principles that promote inclusion in both the design process and the final outcome. In building a vision for the Detroit City of Design initiative, Design Core and its partners worked with hundreds of local stakeholders to identify values that can lead to more inclusive outcomes.

Diverse experiences

Our collective wisdom and unique perspectives empower us. We seek out diverse experiences that inspire us, push us to be curious, and help us grow.

Collaborative relationships

Together we can accomplish more. We nurture collaborative relationships to cross-pollinate ideas, exchange resources, and realize our goals.

Accessible opportunities

Open doors lead to prosperity. We demand accessible opportunities that allow us all to meet our basic needs, lead fulfilling lives, and thrive in our communities.

A live shot from the Red Bull Creation event during the 2015 Detroit Design Festival. Photo by Desmond Love. Copyright Design Core Detroit 2018.

THE EVOLUTION OF INCLUSIVE DESIGN

In 2015, Microsoft launched the Inclusive Design Toolkit, which includes manuals, activities, and videos that have been used to facilitate workshops in South America, Asia, Europe, and all over the United States. Usage of the toolkit is growing, with 23 percent of downloads of the toolkit having occurred since the beginning of 2017.

Although the human capacity to design remains unchanged, the means and methods have altered over time in response to technological, societal, and cultural shifts. Designers, in turn, have refined their processes and products to fit a diverse set of needs.

Inclusive design has its roots in the barrier-free design of the 1950's which provided solutions for people with disabilities. In Europe, the United States, and Japan, barrier-free design removed obstacles in the built environment for people with physical disabilities. This was visible in stairlifts for people in wheelchairs, as well as special signage for blind persons. However, this form of design tended to segregate individuals with serious mobility impairments by providing ad hoc solutions.[5]

By the 1970s, countries recognized the need for design solutions that united rather than divided people based on their differences; the focus shifted toward accessible design. Through this lens, barrier-free design evolved into universal design, which seeks to create environments that can be accessed, understood, or used as widely as possible without the need for modification, adaptation, or assistance.[6] This was manifested in products such as electronically adjustable washbasins or sidewalk ramps. Unlike barrier-free design, universal design provided solutions appropriate for everyone.

Today, many in the global design community are embracing inclusive design. Around the world, academic institutions, government agencies, and nonprofit organizations are dedicating resources to the practice of inclusive design. Some areas, such as urban planning and architecture, are making significant strides toward inclusive practices. In the UK, the Design Council published the Principles of Inclusive Design, a guide to designing buildings and public spaces that benefit everyone.

Design and Architecture Norway, a nonprofit trade organization, offers toolkits, case studies, and resources that help designers integrate inclusive design across disciplines: from architecture to product design to public processes. Efforts to practice inclusive design are also emerging in the United States. The University of Buffalo runs the Center for Inclusive Design and Environmental Access, which provides design solutions for the elderly and people with disabilities. In 2017, the American Institute of Graphic Arts (AIGA) launched the Inclusive Design Checklist, a resource that provides a map to bring diversity into the tools, teams, and processes used by graphic designers.

The relationship between digital technology and design is also gaining traction. The University of Cambridge runs the Inclusive Design Research Center, which focuses on the integration of technology in inclusive design practices. In 2015, Microsoft launched the Inclusive Design Toolkit, which includes manuals, activities, and videos that have been used to facilitate workshops in South America, Asia, Europe, and all over the United States. Usage of the toolkit is growing, with 23 percent of downloads of the toolkit having occurred since the beginning of 2017.

Architect
Gensler

PROFILE

IMANI DAY

Design is a service meant to enhance the world we live in, at every scale; it is often a piece of a solution, but rarely the sole agent. When design works for the people it is intended to serve, it is a powerful catalyst for change. I strive to create educational spaces that expose young minds to the empowering capabilities of well-designed spaces. Inclusive design should start early, when children are most impressionable and get to feel and learn from the effects of their environment. Right now, in Detroit, the public school system is suffering from design failure. We are not fully harnessing the power of design as an impactful, problem-solving tool.

Gensler has the opportunity to lead the conversation around reimagining what educational environments look and feel like in Detroit. We know that educational policy, programming, and design should match the momentum and energy of the city's comeback. Randolph Career and Technical Center is an example of a diverse team of activists coming together to shift perspectives around traditional public school environments in Detroit. Last year, Gensler partnered with Mayor Mike Duggan's Workforce Development team, DTE Energy, the Detroit Public School Community District, and Barton Malow to revitalize a struggling public vocational school to fulfill a growing need: skilled construction tradesmen to rebuild the city.

Executive Director
Community Development
Advocates of Detroit

PROFILE

SARIDA SCOTT

I've learned in the past few years that the word design can be extremely significant and multifaceted. In a general sense, I think of design as the way things are done, a process, a format. As a membership organization, the design of our programming is very important to ensure that it is meaningful and beneficial to participants. I also recognize design as a discipline, a profession, as something that is studied. With respect to this form of design, I am intrigued by it and particularly its application to communities and quality of life. How we design communities can signify who is welcome and who we value. Do we design for every age? Is design inclusive? I've been particularly fascinated by the way design can be applied to issues of equity.

I feel fortunate to work for a membership organization because by its nature, we have to be inclusive. We have to ensure that all members recognize a benefit of their membership. We can't survive otherwise. Inclusive design is present in our leadership. Our board is made up of representatives from every district in the city. Our policy agenda is determined through a process of member, committee, and staff input. As a staff, we work very collaboratively and strive to highlight and incorporate the expertise of residents.

Another major shift in inclusive design can be seen in the interactions between expert design and diffuse design.[7] Expert design refers to products and processes created by individuals formally trained in design principles and practices. Their work is rooted in academic and professional environments that equip designers with specific skills, knowledge, and frameworks. Diffuse design is the craft of designers who lack formal training and have acquired skills by practicing in their own communities. Although they lack credentials, they devise equally innovative and people-driven solutions to improve the quality of life.

Inclusive design pulls on both the experience of expert and diffuse design practices in an effort to ensure everyone can benefit from the solutions. This does not mean the skills of design experts are not needed; rather, it is an opportunity for their skills to become more accessible.[8]

The evolution toward inclusive design has fundamentally transformed the impact of design. Unlike the iterations of design that precede it, inclusive design enables and empowers everyone by creating equitable and sustainable opportunities to engage with life. When properly implemented, inclusive design celebrates and promotes diversity, leading to new avenues for businesses and creating an environment through which government benefits its communities.

Inclusive design pulls on both the experience of expert and diffuse design practices in an effort to ensure everyone can benefit from the solutions.

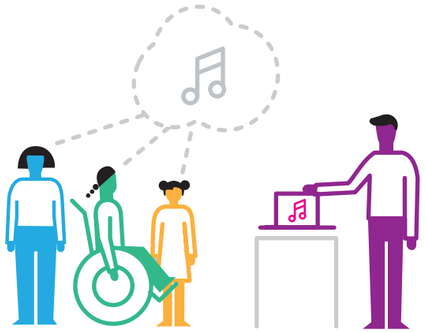
CASE STUDY: DETROIT

DESIGN JUSTICE PROJECT

Detroit's Design Justice Project (DJP) sits at the intersection of diffuse and expert design. The organization emerged in 2015 from a session of the Allied Media Conference. Participants were invited to present design-driven solutions to social and economic problems facing Detroit. In 2016, with a set of principles to guide its work in hand, Design Justice Project began to create design practices that address those who are most affected by design barriers. Although the team is comprised of expert designers—from urban planners to graphic artists—the organization works closely with community groups and advocates, many of whom are not formally trained in design. To date, DJP has received national and international recognition, presenting its principles at the Detroit Design Festival, the Platform Cooperativism Conference in New York City, and Intersectional Perspectives on Design, Politics, and Power in Malmo, Sweden.[9]

GLOBAL CASE STUDIES

Inclusive design processes and products exist across a spectrum and can be scaled to meet the needs of individuals, communities, and society.



COPENHAGEN

EYE CONDUCTOR

Recognizing that everyone has the right to creative expression, designers at the Copenhagen Institute of Interaction Design created the Eye Conductor, a musical interface that allows people with physical disabilities to compose and play musical instruments through eye movements and facial gestures. The project relied heavily on user research: Over the course of the engagement, the designers visited schools and housing communities for people with disabilities to better understand their needs. As a result, the system can be customized to fit the physical abilities of the user. To maximize accessibility, the software uses a regular webcam to track eye movement, making it affordable for people of different means. The Eye Conductor was a runner-up for the Design for Social Impact Award, part of the 2016 Core77 Design Awards.[10]

SAINT-ÉTIENNE

RESOURCE CENTER FOR CREATIVE AND ARTISTIC EDUCATION

In Saint-Étienne, a UNESCO City of Design since 2010, the Cité du Design team partnered with the Ministry of National Education to explore how inclusive design can lead to better outcomes for student education and well-being. Bringing together hundreds of students as well as teachers, parents, and after-school staff together with design professionals, the group reimagined the physical and curricular structure of education in France, using design and technology to create a better learning environment. Now a nationally recognized best practice being implemented all over France, this initiative places students at the center of the process to design a better learning experience.

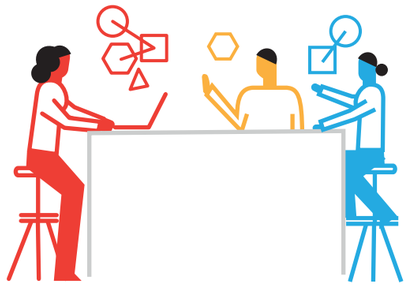
MEXICO CITY

MAPATÓN

In 2012, Mexico City, which joined the UNESCO City of Design network in 2017, turned to open data to revamp its public transit system. Five separate agencies operate the city's extensive network, which includes 12 subway lines, 4 rapid transit lines, 8 light rail lines, 100 official bus routes, 260 public bike stations, and over 1,400 unchartered, informal bus routes. Each agency stored transit data separately, and the lack of centralized information prevented users from planning trips efficiently. To remedy this situation, public transit riders used an open-source mobile app to collect real-time transit data, such as routes, speed, the location of bus stops, and frequency of departures. They crisscrossed Mexico City to populate a comprehensive transit map, Mapatón, in an effort to indiscriminately provided residents with access to transportation, connecting them to jobs, school, and cultural activities.[11]

DETROIT CASE STUDIES

With regard to Detroit's unique challenges, inclusive design presents itself as a powerful tool for equitable and sustainable development. Examples of ways cities use inclusive design to improve the quality of life for residents are already visible across the globe. The UNESCO City of Design recognition is an opportunity to put Detroit's design assets to work for a happier, healthier future for all Detroiters. Detroit too has a history of creating inclusive environments through the design of spaces, opportunities, and experiences.



DETROIT

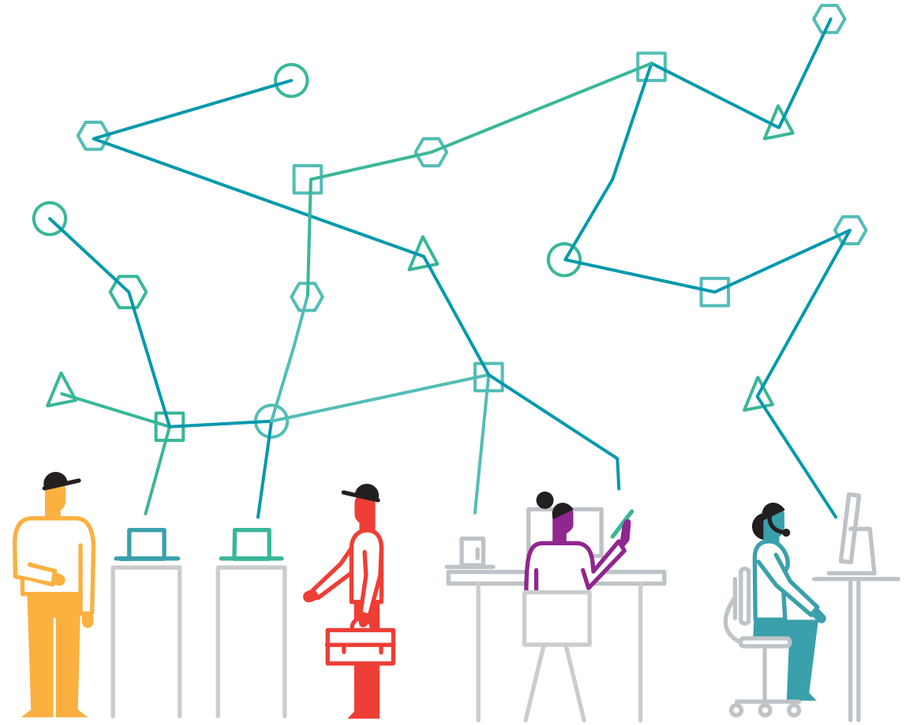
MODEL G

One example native to Detroit is the Model G patient gown, designed by the Henry Ford Innovation Institute, to give hospital patients more dignity. The Model G is more discreet than typical gowns, closing with snaps on the side rather than cloth ties on the back, without losing any of the essential features needed for doctors, nurses, X-ray technicians, or other hospital staff to provide care. In 2016, the gown was licensed to Medline Industries, a Chicago-based manufacturer, in response to growing demand for the product by patients and physicians alike.[12]

DETROIT

CREATE NED

The Create NED initiative grew out of existing efforts in North East Detroit to improve the neighborhood and collaboratively plan for a better future. Partnering with Allied Media Projects and the Work Department, Restore NED, the organization responsible for Create NED, received a $500,000 grant from Art Place America in 2015 to support community members' visions for activating their community through public art, gatherings, and community news. Putting people at the center of the Create NED initiative demonstrated an inclusive community planning process. The Art Place grant accelerated the impact of this practice and empowered citizens to take ownership over their community.



DETROIT

DETROIT COMMUNITY TECHNOLOGY PROJECT

One of many programs incubated through the Allied Media Conference, the Detroit Community Technology Project (DCTP) seeks to address the digital divide that prevents residents in urban communities from accessing the web in an increasingly digital world. With internet service providers leaving urban communities behind and government failing to curb discrimination or invest in public digital infrastructure, residents in Detroit and around the world are unable to connect to the Internet. This has major implications for students attempting to complete homework or residents seeking employment. Over the past four years, DCTP has worked with the Open Technology Institute to facilitate 19 local and international community wireless mesh networks and taught dozens of community members how to build and maintain their own wireless communications infrastructure through the Detroit Digital Stewards Program. DCTP also manages the Data Justice Campaign, exploring issues of data rights, digital privacy, and racial and economic inequality in the United States. The project exemplifies the potential of inclusive design in improving the functionality and accessibility of digital systems like the internet.

ENDNOTES

1 (OCAD University, 2015)

2 (Choi, 2017)

3 (OCAD University, 2015)

4 (OCAD University, 2015)

5 (Institute for Human Centered Design, 2016)

6 (Centre for Excellence in Universal Design, 2012)

7 (Mazini, 2015)

8 (OCAD University, 2015)

9 (Design Justice Network, 2016)

10 (Core77, 2016)

11 (Laboratorio Para la Ciudad, 2016)

12 (Henry Ford Innovation Institute, 2015)

Young designers participate in a workshop during the visioning process. Photo by: Desmond Love.

CHAPTER 6

Areas for Strategic Action

A Vision for Inclusive Growth

The Strategic Approach

Talent

Investment

Policy and Advocacy

Kimberly Dowdell of Century Partners speaks about the need for more equitable development practices at the 2017 Detroit City of Design Summit. Photo by Do Good Work. Copyright Design Core Detroit 2018.

THROUGH THE DETROIT CITY OF DESIGN initiative, Detroit can become a model for inclusive design; a testing ground for new design processes and products that can transform Detroit into a more equitable and sustainable city. The model will leverage the UNESCO City of Design designation to build collaborative partnerships that bring Detroit's values and vision to life through projects that cultivate talent, invest in design, and promote new policies that promote inclusive design excellence.

These strategic areas—talent, investment, and policy—were identified over the course of interviews, workshops, and public meetings in conversations with stakeholders, designers, and residents and supported by case studies, industry reports, and economic development papers from across the globe. These opportunities are influenced by and influencers of inclusive design and can catalyze Detroit toward a new growth paradigm. Through this vision for Detroit, inclusive growth will benefit all Detroiters, improving the quality of life in ways that are meaningful to each individual.

A VISION FOR INCLUSIVE GROWTH

The long-term goal is to drive inclusive growth through the practice of inclusive design. While specific projects and initiatives will develop and evolve over the next several years, the intention is that they will lead to more people in Detroit living a "good life" in the city. This means Increased safety and walkability within and between neighborhoods, increased access to goods and services, and increased connection to the economic opportunities Detroiters need. Detroiters will begin to see government, businesses, and institutions as welcoming and supportive of resident needs.

The Detroit City of Design initiative also hopes to see the following impacts in the design community:

A more diverse composition of designers graduating from local colleges and universities to make up a more diverse design workforce across all sectors of the economy

A growing number of cutting-edge research programs, businesses, products, and projects that advance the field of inclusive design

More diverse and experienced designers working alongside communities to revitalize neighborhoods without losing the vibrancy of local flavors and customs

Events like Drinks x Design offer opportunities to connect people to connect with local design talent, like Joshua Smith, founder of Who's That, and Branding and Design studio. Photo by: Erada Svetlana. Photo credit: Design Core Detroit 2018.

THE STRATEGIC APPROACH

Working together with partners from industry, academia, government, community, and members of the UNESCO Creative Cities Network over the next 10 years, the Detroit City of Design initiative believes this vision can be achieved by increasing the practice of inclusive design in Detroit through these three strategic areas:

TALENT

Develop TALENT that is representative of the diversity of our communities and create opportunities that encourage people to strengthen or establish roots in Detroit.

INVESTMENT

INVEST in Detroit's design businesses and resources to advance design-driven industries, especially in ways that develop the practice of inclusive design.

POLICY

Create a POLICY environment that embraces inclusive design to inform how the city looks and works, raising awareness of the value of inclusive design and its tangible impact on Detroit.

Talent

Seven recommendations to develop and promote talent for tomorrow.

Support initiatives for youth that include design as a core subject area.

A report published by the National Governors Association in 2012 revealed the extent to which the 21st century economy demands its workers be proficient readers, writers, problem solvers, and creative thinkers. Art, culture, and design can assist with economic growth by delivering a well-rounded workforce that can help industries remain competitive.[1]

In Detroit, the Brightmoor Woodworkers, which began as an after-school program sponsored by Detroit Community High School, evolved into a neighborhood business, employing students in handcrafted woodworking. The program teaches students valuable entrepreneurship skills to fuel the growth of minority-owned businesses in Detroit.[2]

Foster the many pathways to securing a job in a design-driven business.

Recognizing that there are nontraditional and informal ways to receive design training, the Detroit City of Design initiative commits to championing programs that foster a more diverse workforce. These programs include those that introduce Detroit high school students to careers in architecture or other core design fields to youth-led enterprises in sewing, carpentry, or website design. Because of the breadth of jobs in design-driven industries, many have a low barrier to entry, making it possible for communities that are traditionally not part of the workforce to play an active role in
the economy.

Detroit is already exploring these avenues. The Mayor's Office of Workforce Development launched a high school program in 2016 targeting skilled trades. Students at any of the district schools are encouraged to participate in half-day programming, including welding, woodworking, and mechanics, for the duration of the academic year. The purpose of the program is to foster a greater connection to jobs through employment programs and unions. With a wealth of historic architecture, much of which requires maintenance if not outright rehabilitation, Detroit has a unique opportunity to leverage its rich legacy of skilled trades and crafts to restore and reimagine buildings of all sizes and uses in the city.

Art, culture, and design can assist with economic growth by delivering a well-rounded workforce that can help industries remain competitive.

Advocate for job-skilling programs that help workers succeed in design-driven industries that may be impacted by technology.

The relationship between design and technology is increasingly apparent. This is seen in more traditional design disciplines, like graphic design and product design; new design fields including UI/UX interaction design and media arts; and industries closely related to design, such as manufacturing and engineering. Across the board, these sectors are increasingly incorporating technology in efforts to cut costs and maximize the efficiency of their products and processes, dramatically changing the employment landscape.[3]

This is motivation to upskill the workforce in advanced technology skills that can enhance design-driven sectors. New York City is home to programs aimed at expanding the pipeline of talent with the needed skills to access jobs at the intersection of tech and design. These programs include the de Blasio administration's Tech Talent Pipeline; widely acclaimed education initiatives like P-Teach; programs run by nonprofits, such as Coalition for Queens and Girls Who Code; and on-site industry training centers at the Brooklyn Navy Yard and Industry City. Graduates go on to fill New York's expanding technology start-up scene or the growing number of light manufacturing jobs that are returning to the city.[4]

Encourage design businesses to provide necessary and meaningful professional training for talent of all levels.

Local workforce development experts interviewed as part of the Visioning Process believe employers are responsible for training Detroit's workforce by providing professional development opportunities in a range of critical thinking and technical skills. As design skills become more desirable, government-sponsored programs to re-skill adults or transitioning workers are increasingly championing problem solving and critical thinking, as well as other creative skills required for knowledge-intensive jobs.

While there is a demand for companies to address this need, there are many nonprofit organizations currently filling this gap. One example is Women Who Weld, a nonprofit that teaches women how to weld and find employment in the welding industry, which supports businesses in manufacturing and built environment. The organization offers a series of programs—from immersive trainings to workshops—that fit the scheduling needs of students. Since 2014 over a dozen women have completed training through Women Who Weld, and the program boasts 100 percent graduation and job placement rates.[5]

Create an Inclusive Design Certification program that educates designers in culturally competent design practices.

The Detroit City of Design initiative recognizes an opportunity to eventually create an Inclusive Design Certification that equips designers with the knowledge and skills to deliver products and services that speak to the diversity of Detroit's communities. As the initiative takes hold in Detroit, Design Core could organize academic, community, and industry partners to develop the certification program.

Inclusive Design Certification

The Inclusive Design Certification would be offered to design businesses to validate their ability to work across cultures and communities in ways that are reflective of the local fabric. To receive the certification, designers would be required to complete a series of workshops in areas that may include: community engagement strategies; designing for different race, gender, and ethnic experiences; co-creating and co-designing interventions; designing from a place of empathy; grassroots design processes; and labs taught by community members recognized as designers of movements and interventions in Detroit's neighborhoods.

The goal of the certification is to immerse designers in the experiences of marginalized persons. Workshops would be taught and attended alongside community members to create a more inclusive lens through which to approach the design of physical spaces, public processes, transportation, curriculum development, and job opportunities. By inviting professional designers to engage with the community, residents would also learn to recognize the ways in which design can be a tool for inclusion, rather than exclusion.

Young Detroiters experiment with city-building during Youth Day, an annual event during the Month of Design that features hands-on design-based activities, from soldering to screen printing. Photo by Desmond Love. Photo Credit Keenan Hastings.

As design skills become more desirable, government-sponsored programs to reskill adults or transitioning workers are increasingly championing problem solving and critical thinking, as well as other creative skills required for knowledge-intensive jobs.

Footwork: The Choreography of Collaboration," curated by Public Design Trust, was one of several Detroit projects that took place during the 2017 Saint-Etienne International Design Biennale in Saint-Etienne, France. Invited as the Guest City of Honor, more than 70 Detroiters travelled to the the fellow UNESCO City of Design for the event, which drew over 234,000 attendees over the course of a month. Photo by Anne Laure Lechat. Copyright Creative Many Michigan 2017.

Collaborate with professional associations to provide opportunities that support and foster Detroit's diverse talent.

Detroit has a robust network of trade organizations, including local chapters of the American Institute of Architects, the American Institute of Graphic Artists, and the National Organization of Minority Architects. These networks help designers cultivate professional networks through events and trainings. One veteran graphic designer noted the importance of seeking support from professional groups, particularly at the onset of a career.

In conversations with emerging graphic designers, many recounted relying on the American Institute of Graphic Artists (AIGA) when starting their businesses. AIGA provided a social network, contacts, and skills through workshops and informal mentoring. The American Institute of Architect (AIA) curates programming that is community oriented, including continuing education opportunities for young and seasoned architects. Their K-12 programming brings architecture into the classroom, connecting more students to design opportunities. In Detroit, AIA holds its annual gala and award ceremony during the Detroit Design Festival, which is open to the public. Through a public lecture series, they work with cultural institutions to make architecture accessible to the community.

Commit to funding annual global exchange opportunities to promote Detroit designers.

Detroit is home to over 15,000 designers. Some of these designers are adding to Detroit's canon of inclusive design, pushing forward a design agenda that makes the city's approach unique. There is an opportunity to promote this talent widely by funding new programs and competitions through the UNESCO Creative Cities Network. Design Core, with the support of its partners, can identify additional sources of funding to support Detroit design businesses as they develop professional relationships and showcase their work across the globe.

In 2017, over 100 Detroiters traveled abroad as a result of Detroit's design designation.

Some of these efforts are already succeeding. In 2017, over 100 Detroiters traveled abroad as a result of Detroit's design designation. Thing Thing, a Detroit-based product design and installation team, represented Detroit in the International Design Biennale in Saint-Étienne, France, as well as at Dundee's Design Month in Scotland. Design Core, on behalf of Detroit City of Design, is also gearing up to facilitate additional exchanges with other members of the UNESCO Creative Cities Networks to showcase Detroit talent across the globe.

What could happen if we develop talent for tomorrow?

A MORE DIVERSE COMPOSITION OF DESIGNERS GRADUATING FROM LOCAL COLLEGES AND UNIVERSITIES TO MAKE UP A MORE DIVERSE DESIGN WORKFORCE.

MORE JOB OPPORTUNITIES IN DESIGN-DRIVEN OCCUPATIONS FOR WOMEN AND PEOPLE OF COLOR.

AN INCREASED NUMBER OF DESIGN JOBS AND OPPORTUNITIES ACROSS THE CITY'S INDUSTRIES.

WE ARE HIRING!

DESIGN & CO

DESIGN NEEDS:

FOR RENT

NEWS

INCREASED LOCAL, NATIONAL, AND INTERNATIONAL RECOGNITION OF DETROIT'S TALENT BY WAY OF AWARDS, COMMISSIONS, AND MEDIA PRESENCE.

Investment

Five recommendations for how to invest in design businesses.

Leverage Design Core's business curriculum to educate designers on how to access mainstream capital.

The biggest challenge facing creative enterprises is insufficient knowledge about business plan development. New entrepreneurs are unfamiliar with the language and process necessary to secure loans for their business. Research shows that banks and other financial institutions frequently reject lending requests because creative businesses lack credible applications. Detroit-based investors and lenders expressed the same concern.

Working with private and public investors and lenders, Design Core is in the position to leverage its member network to develop a curriculum that helps design businesses achieve financial readiness. Designers can help inform the content of the classes and collateral to ensure they are addressing major pain points. These efforts build on Design Core's current services, as well as those offered by others in Detroit's entrepreneurial ecosystem.

Work with lenders to improve understanding of and offerings for creative businesses.

One of the major barriers facing design businesses globally is a lack of understanding of their financial needs by mainstream investors and lenders. For instance, loan sizes are too small, and lenders provide little technical assistance to help businesses manage the funds.[6] As a result, creative businesses demonstrate a greater reliance on crowdfunding platforms that offer cheaper and more flexible capital.

Despite these challenges, there are opportunities to develop programs and offerings that support the financial needs of creative enterprises in Detroit. Design Core can leverage its relationship with the Detroit CDFI Coalition to develop workshops that educate investors on the value of design. In interviews, Detroit lenders and investors admitted to understanding little about the return on investment of design, stating the benefits are often intangible, which makes it difficult to quantify the risk. Through education measures, there is an opportunity to improve underwriting processes for design businesses.

CASE STUDY: NEW YORK

UPSTART CO-LAB

Upstart Co-Lab is a national organization dedicated to securing capital for innovative and socially minded creative businesses. Working collaboratively with impact investors, social entrepreneurs, and artists, Upstart Co-Lab manages a portfolio of projects that reflect the potential of creative businesses to transform the social and economic landscape of communities. The organization funds creative enterprises that have an impact on a range of social needs—from the environment and public health to jobs and education. Although each business differs, Upstart Co-Lab champions projects that value inclusion, equity, and sustainability by providing quality jobs, being stewards for the environment, and strengthening their communities.[7]

Light fixtures hang in AERIA studio during the February 2014 edition of Drinks x Design, a monthly networking event for Detroit's design community. Photo by Jay Singleton. Copyright Jay Singleton.

Encourage lenders to create a new capital pool for design enterprises and businesses practicing inclusive design.

According to UNESCO's Creative Economy Report, capital, particularly early-stage funding, remains the biggest barrier to entrepreneurship.[8]

Through the Detroit City of Design initiative, Design Core and its partners can encourage local and national investors to contribute to a new capital pool that provides suitable products and services for design businesses. This would alleviate pressure on design businesses that compete with other industries backed by sturdier collateral. The Creative Industries Federation reports this kind of targeted investment is increasingly popular; some countries offer loans to creative companies in efforts to protect the local culture.[9]

CASE STUDY: MILAN

BASE MILANO

In 2016, Milan converted the Ex-Ansaldo, a former industrial plant, into Base Milano, a 160,000-square-foot-mixed-use facility. The facility was designed to fill the need for centrally located light manufacturing space in a growing creative community. The refurbishment of the prewar plant was carried out exclusively by Milan-based firms in an attempt to put to use architecture, interior design, furniture, and fabric enterprises that struggle to find consistent work in the region. Currently, the Ex-Ansaldo houses Milan's Museum of Cultures, as well as the production space for La Scala's sets, and is intended to accommodate emerging designers and makers seeking flexible and affordable studios and shops. Since opening its doors, Base Milano has hosted dozens of local, national, and international design events with the goal of activating and catalyzing Milan's maker community.[10]

The Platform is one development firm that is working to create more affordable space for Detroit designers. Owners of the iconic Fisher Building, they frequently host events for Detroit's creative community, including the May 2017 edition of Drinks x Design focused on makers. Photo by Vanessa Miller. Copyright Design Core Detroit 2018.

Promote new and existing makerspaces to design-driven businesses seeking affordable, move-in-ready facilities.

Given Detroit's manufacturing heritage, the city is home to large swaths of makerspaces and production facilities. Nevertheless, facilities, and demand for affordable and move-in-ready facilities is high.[11] The Detroit City of Design initiative can collaborate with designers and manufacturers to identify equipment and machinery needs for new and existing manufacturing spaces. Spaces like this already exist, including PonyRide, a start-up incubator that excels in providing emerging entrepreneurs with social capital, and Incite Focus, a high-tech lab that offers training in advanced manufacturing. Additional facilities of this kind that bring together talent, capital, and policy are already in the works.

Develop new tools and programs to support the prototyping, commercialization, and scaling of product-based businesses in Detroit.

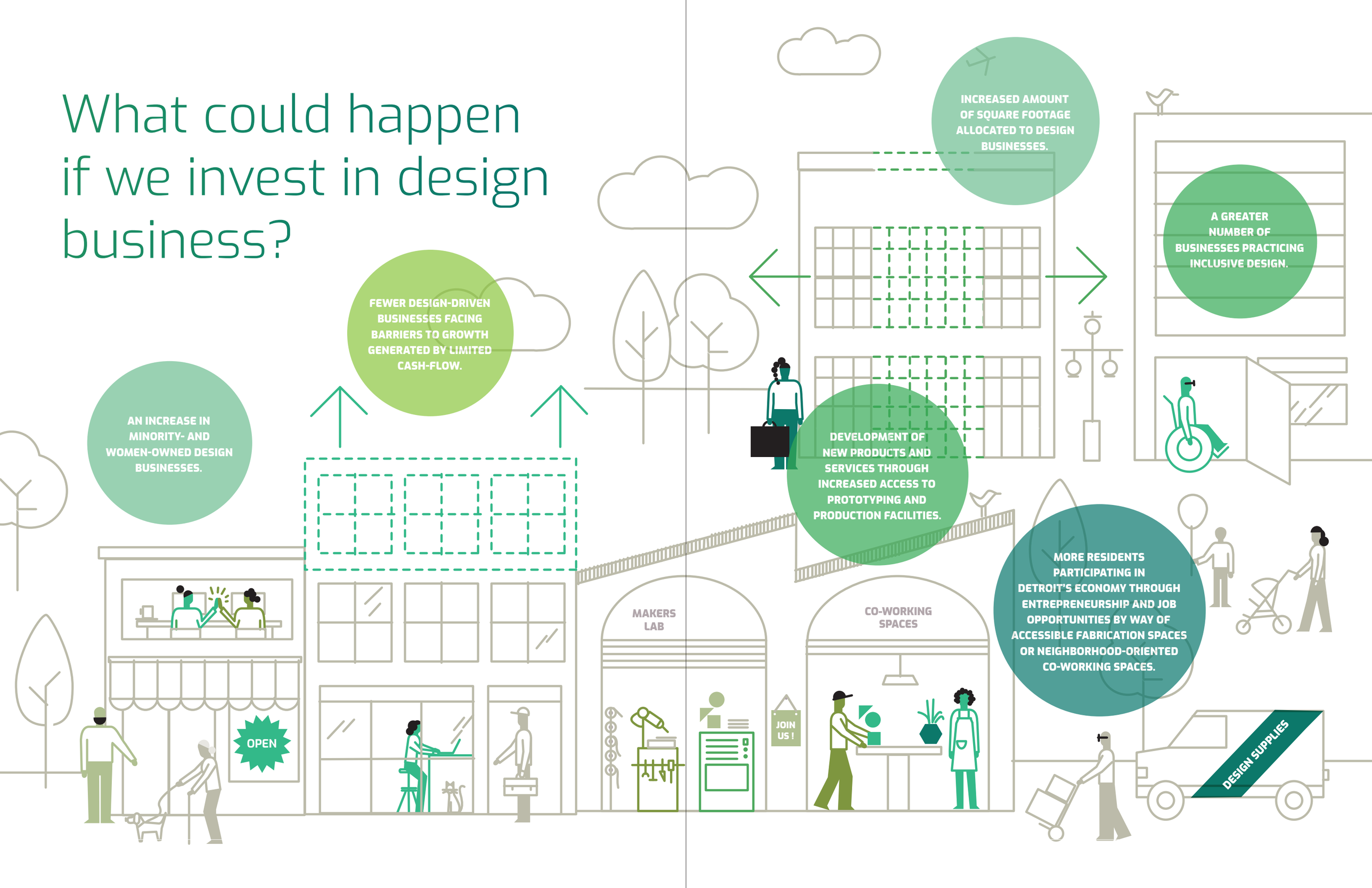
Detroit has the capabilities to prototype, commercialize, scale, and distribute new products, but those assets and capabilities have not been organized in such a way as to support new entrepreneurs in design-driven industries. In its 2018 State of Urban Manufacturing: Detroit Snapshot, the Urban Manufacturing Alliance found that in addition to the real estate and capital challenges mentioned previously, small-scale manufacturers were struggling to find the right technical support for scaling product-based businesses and accessing Southeast Michigan's rich network of industrial suppliers and logistics experts. Design Core and its partners can work together to better connect existing resources and services and develop new tools and programs that can address these needs.

CASE STUDY: DETROIT

INCITE FOCUS

Incite Focus is a world-recognized production and training lab that strives to stimulate local entrepreneurship and provide a collaborative learning environment for all Detroiters. Incite Focus builds on Detroit's manufacturing heritage and leverages new partnerships through the Fab Lab, a global community of educators, technologists, researchers, makers, and innovators. Through these partnerships, Incite Focus provides scholarships, allowing emerging makers of different socioeconomic means to benefit from the range of programs it offers. These include The Fab Academy, a hands-on learning curriculum in which students plan and execute new projects each week to culminate in a portfolio of work. Incite Focus also runs a formal apprenticeship program called Maker Professional, which equips participants with the skills to succeed in digital making and manufacturing.[12]

What could happen if we invest in design business?



Policy and Advocacy

Seven recommendations to develop an environment that demands inclusive design

Commit to policies that improve communication and decision-making around land use, zoning, and infrastructure through the use of human-centered design.

A 2017 report by the American Planning Association argues that equitable development is at the heart of building a robust economy. Equitable development is an approach designed to meet the needs of underserved communities through policies and programs, including housing choice; transportation choice; heritage preservation; entrepreneurship; stewardship; civic engagement; and sustainable wealth creation, that simultaneously reduce disparities and foster healthy and vibrant places.[13]

The first step is creating an environment that encourages open communication and transparent decision-making. Workshops, community engagement sessions, and consistent feedback loops can shape a design process that places the human experience at the heart of development. The Detroit City of Design initiative will support efforts to improve communication with Detroit communities to result in equitable changes to the built environment that benefit all Detroiters. Working with the Planning and Development Department and private investors, Detroit can create a space for participatory decision-making.

Preserve Detroit's cultural integrity by increasing arts and culture capacity and accountability in city government.

Interviews with designers, entrepreneurs, public officials, investors, and residents revealed that one of Detroit's biggest assets is its authenticity. This is often manifested through artistic and cultural expressions. In addition, arts and culture are often entwined with urban design interventions. To ensure Detroit's future is inclusive of the communities that represent its past and present, city government needs more capacity, in the form of staff, leadership, and policy, to integrate arts and culture into Detroit's revitalization plans.

CASE STUDY: SEOUL

PUBLIC DESIGN STANDARDS

In 2007, Seoul began developing public design guidelines to transform the city from one focused on development and growth to a community targeting culture and quality of life. In fact, Seoul's public design guidelines were intended to enhance public spaces and create comfortable and healthy communities. Through a collaborative process that brought together residents with representatives of public agencies, urban planners, architects, and business groups, the guidelines informed the design of public buildings, public facilities, public spaces, and outdoor signs to create a more harmonious and culturally competent built environment. After multiple iterations and a call for wide participation, Seoul settled on the following goals: public spaces that prioritize pedestrians; cities and streets that are safe and convenient for mobility-impaired residents; and open spaces to improve sight lines and safety.[14]

Assistant Professor of Architecture and Director of the Master of Community Development Program University of Detroit Mercy School of Architecture

PROFILE

VIRGINIA STANARD

Design to me is a tool for improving quality of life—from the scale of visual communication to objects to the built environment—and everyone deserves good design. As a process, design requires the involvement of those who will be impacted by it. Design is collaborative. Additionally, design is interdisciplinary. It identifies and solves problems through the consideration of multiple factors that affect one another including social, economic, ecological, and political influences. In my work, I implement a collaborative and interdisciplinary model of teaching, research, and practice focused on community-based design. I create frameworks for collaborative dialogue among designers and residents, users, and stakeholders to inform high-quality design decision-making supported by research and data.

For design students in Detroit, this approach is essential as it involves engaging and empathizing with people to understand their experiences and motivations, immersing oneself in the physical environment to have a deeper personal understanding of the local assets and issues involved, and conducting research on the interrelated factors influencing a situation. The design challenges of Detroit are complex and require solutions that respond to the issues and people of the city. Through their real-world projects and practicum opportunities that focus on engaging communities, Detroit's design institutions are champions of this interdisciplinary and collaborative approach toward improving quality of life through design, making Detroit the place to study and practice inclusive design.

Support initiatives in city agencies that use human-centered design to improve systems and processes.

In interviews with public officials, business support providers, designers, and entrepreneurs, permitting and licensing processes were identified as pain points for businesses. Detroit is not the only city with these kinds of complaints. In Boston, lengthy permitting processes were slowing the city's economic development, so in 2010 the mayor announced a plan to create a more streamlined and transparent process, including a hackathon where developers and designers worked together to solve lengthy wait times and inefficient navigation. By 2015, on-time permit issuance had increased from 56 percent to 75 percent.[15] There is a similar opportunity for Detroit as it looks to integrate human-centered design practices in its public processes.

Treat every development, public and private, as an opportunity to invest in inclusive design.

As Detroit's economy slowly improves, the city is experiencing a significant increase in new developments and plans for housing, public spaces, and infrastructure. Both public and private sector developments can utilize inclusive design to develop spaces that appeal to and welcome people from all walks of life.

Both public and private sector developments can utilize inclusive design to develop spaces that appeal to and welcome people from all walks of life.

If implemented, FitzForward, a proposed two-year engagement to revitalize the Fitzgerald neighborhood of Detroit by rehabilitating 115 vacant homes, could be a model worth replicating. The project would also landscape 192 vacant lots, of which over 11 acres would be dedicated to agricultural use, in addition to a new two-acre park.[16] The goal is to breathe new life into the land through adaptive reuse, building off the existing infrastructure rather than the more traditional model of demolition and new construction. Strengthening existing assets will help to retain and attract residents and, in time, more businesses and services to the area.

CASE STUDY: MONTREAL

COMMERCE DESIGN COMPETITION

In 1995, Montreal launched the Commerce Design Montréal competition to recognize businesses for investing in the design of their space. Since then, the competition, which is held every other year, brings together a jury of designers, academics, and public officials to evaluate businesses that make use of interior design and architecture services effectively and with an eye toward the city's cultural diversity. Each year, a jury of designers selects 20 winning businesses; one business, selected by popular vote, is given the People's Choice award. The competition is intended to make quality design more accessible and show how it can add value to every business regardless of size or budget.

A study of the initiative's impact after 10 editions of the competition revealed the program had:

- Produced a ripple effect on neighboring businesses;
- Promoted quality design in all price ranges;
- Opened new markets for emerging designers;
- Attracted public participation; and
- Developed a new and better-informed audience.

The success of the initiative attracted requests from several other cities, and in 2006, UN HABITAT recognized Commerce Design as a best practice for improving the living environment. Detroit is the 15th city to license the competition.[17]

Use data and human-centered design to improve mobility in Detroit.

Detroit recognizes that there are opportunities to rethink mobility in ways that improves the lives of all Detroiters. The presence of General Motors, Ford, and Fiat Chrysler Automobiles in the metro area provides an impetus to think about the future of mobility, given the advent of autonomous cars and the ways in which these will shape interactions between people and their surroundings.

The Detroit City of Design initiative can collaborate with designers and community groups to pursue projects, such as the City of Detroit's Mobility Initiative, which promote equitable mobility in Detroit. Detroit should also look to its counterparts, such as Portland, Oregon, Mexico City, and Copenhagen, which have leveraged real-time data and advanced technology to create transportation inclusive of multimodal means and needs of diverse populations.

Pilot projects within the business community that utilize inclusive design practices in order to increase understanding of the strategic value of this approach.

As Detroit moves to promote inclusive design practices locally, nationally, and internationally, it can formalize projects that demonstrate the value of inclusive design. The Detroit City of Design initiative can work with the business community, including multinational corporations and large local firms, to pilot projects that test new ideas, products, and services. These can include mobility efforts, supply chain models, business incubators and accelerators, or new technologies to be used in light manufacturing.

Recognizing that inclusive design projects may take longer to craft and implement, Design Core can advocate for funding to help build capacity. These efforts can support projects to design and make inclusively designed goods and services, as well as fund staff positions in public and private sector firms to shepherd inclusive design projects from inception to completion. Design Core can also connect designers with the private sector to educate non-design industries on the benefits of human-centered approaches to product and service design.

CASE STUDY: DETROIT

WHOLE FOODS MARKET

While Whole Foods may seem like an unexpected example, the effort to open a store in Detroit shows how an inclusive design approach can help businesses of all types to create a space where everyone in the community feels welcome and shops. In the preplanning phases of the store's development, Whole Foods invited low-income residents, particularly the elderly and families receiving government assistance, on tours of existing Whole Foods Markets. Participants were asked for their feedback to inform store layout, product variety, and other services. In efforts to make the store accessible to everyone, Whole Foods showed customers how to shop its stores on a budget and developed a nutrition education program to teach potential Detroit shoppers new recipes and the health impacts of unfamiliar ingredients. Through these participatory planning elements, Whole Foods systematically developed a variety of ways to engage people to address perceived barriers in using the new store.

Everard Findlay explores the greenhouses at CROP UP, an exhibition and open house hosted by the Oakland Avenue Urban Farm and curated by Akoaki, in September 2017.
Photo by Do Good Work. Copyright Design Core Detroit 2018.

Residents discuss upcoming and proposed design projects at "Detroit Design 139," an exhibition presented by the City of Detroit Planning Department and Bedrock during the 2017 Detroit Design Festival. Photo Credit: Photo by Do Good Work. Copyright Design Core Detroit 2018.

Improving the procurement process and making it more accessible are easy ways to create more opportunities that benefit creative businesses.

Support policies and practices that lead to public sector and private companies hiring local emerging design firms to fulfill contracts.

Detroit is home to 454 design firms. Many of these firms are considered small businesses with fewer than 10 employees. Despite their size, they have the skills to compete for large public and private sector contracts. However, according to designers and entrepreneurs interviewed as part of the Visioning Process, few contracts are awarded to smaller firms. This creates a vicious cycle whereby younger design firms struggle to scale and secure larger projects because they lack sufficient experience.

Improving the procurement process and making it more accessible are easy ways to create more opportunities that benefit creative businesses.[18] Breaking up projects into smaller pieces could engage a greater number of local and less experienced firms, connecting designers to procurement opportunities. Montreal implemented a version of this policy to award more city development contracts to local designers. By converting a traditional call for proposals into public design competitions, the city democratized its procurement process, hosting 55 competitions and paying over $17 million to local design firms over a 10-year period. Local designers were not the only ones to benefit. The competition model and public review effectively elevated the standard for design in public spaces, transforming the city into a mecca for urban design.

CASE STUDY: BERLIN

DESIGN BONUS TRANSFER

Berlin launched the Design Bonus Transfer program in 2011 to help small and medium-size enterprises leverage the power of creativity and design in the ideation, creation, and manufacture of products and services. The program brings together companies from Berlin's traditional sectors, including health care, transportation, and manufacturing, with local design companies. Participating companies are given the opportunity to work with design experts early in the production process to develop new, innovative solutions. The program funds up to 70 percent of the total expenses of a project to a maximum of 15,000 euros ($18,000). Since 2011, this program has financed over 150 cross-disciplinary and multi-industry innovation projects.[19]

What could happen if we push for progressive design policies?

AN INCREASE IN SAFETY AND WALKABILITY WITHIN AND BETWEEN NEIGHBORHOODS, INCREASED ACCESS TO GOODS AND SERVICES, AND INCREASED CONNECTION TO THE OPPORTUNITIES DETROITERS NEED.

A GREATER NUMBER OF BIDS AWARDED TO MINORITY-OWNED, WOMEN-OWNED OR SMALL DESIGN ENTERPRISES.

MORE PERMITS AND LICENSES AWARDED TO MINORITY-OWNED AND SELF-EMPLOYED BUSINESSES.

LOCAL UNDERSTANDING OF INCLUSIVE DESIGN PRACTICES WILL IMPROVE AS THE PUBLIC AND PRIVATE SECTORS USE EQUITABLE AND CULTURALLY-SENSITIVE PROCESSES.

NEIGHBORHOODS THAT ARE REVITALIZED WHILE RETAINING THE VIBRANCY OF LOCAL FLAVORS AND CUSTOMS.

IMPROVED PERCEPTIONS OF GOVERNMENT, BUSINESSES, AND INSTITUTIONS AS WELCOMING AND SUPPORTIVE OF STAKEHOLDERS' NEEDS.

ENDNOTES

1 (The National Governors Association, 2015)

2 (Model D, 2011)

3 (Frey, 2016)

4 (Center for an Urban Future, 2016)

5 (Women Who Weld, 2017)

6 (Restrepo, 2013.)

7 (Upstart Co-Lab, 2017)

8 (Beaney, 2015)

9 (Calvert Foundation, 2017)

10 (Turismo Milano, 2015)

11 (Urban Manufacturing Alliance, 2018)

12 (Incite Focus, 2017)

13 (Eley, 2017)

14 (Seoul Design Foundation, 2017)

15 (Lawrence, 2015)

16 (The Platform, 2016)

17 (Ville de Montréal Bureau du Design, 2017)

18 (Restrepo, 2013)

19 (Senate for Economics, Technology, and Research, 2016)

As a member of the UNESCO Creative Cities Network, Detroit has the ability to exchange ideas and learn how other cities have leveraged design from a policy perspective. Partners from Puebla, Mexico, Dundee, UK, and Kobe, Japan, shared their perspectives at the 2017 Detroit City of Design Summit. Photo by Do Good Work. Copyright Design Core 2018.

CHAPTER 7

The Possibilities of Inclusive Design in Detroit

THROUGH INCLUSIVE DESIGN, THE DETROIT City of Design initiative can create conditions for a better quality of life in Detroit. Through collaborative relationships, diverse experiences, and accessible opportunities, inclusive design can offer solutions to the challenges facing Detroit and prepare the city to succeed in the 21st century and beyond. Detroit's model of inclusive design can help scale products, services, and processes, so solutions can be implemented broadly at the local level and exported globally.

Detroit's inclusive design model will champion the city's diverse talent, innovative investment models, and equitable policies to generate growth in the design economy. Detroit's design community will witness a more diverse composition of designers, some of whom will work alongside communities to understand the expertise and desires of local residents and preserve local culture. These partnerships will give rise to a growing number of cutting-edge research programs and projects that will advance the field of inclusive design.

The city's economy will also benefit from inclusive design practices. Detroit's neighborhoods will have greater access to goods and services, creating more connections to opportunities, like jobs, education, and amenities that Detroiters deserve. By weaving inclusive design into every aspect of the public and private spheres, Detroit will celebrate the city's diversity and improve perceptions of government, businesses, and institutions as welcoming and supportive of all communities.

The Detroit City of Design initiative will work with the city's institutions and communities to identify opportunities that can improve quality of life for all Detroiters; champion the potential of design to transform communities; and put Detroit on the map as a globally recognized leader of inclusive design.

Together, let's take action!

CHAPTER 8

Appendices

QUANTITATIVE ANALYSIS

Primer on Design

In an effort to quantify Detroit's design economy, Urbane Development is utilizing several definitions of design in order to capture an accurate snapshot. The **primary definition** guiding our analysis comes from the UK Design Council, which writes that design is "the creative of a proposition in a medium, using tools as part of a process." Additionally, a **secondary definition** guiding our analysis incorporates the 2005 Cox Review of Creativity in Business, which states::

"Design is what links creativity and innovation. It shapes ideas to become practical and attractive propositions for users or customers. Design may be described as creativity deployed to a specific end."

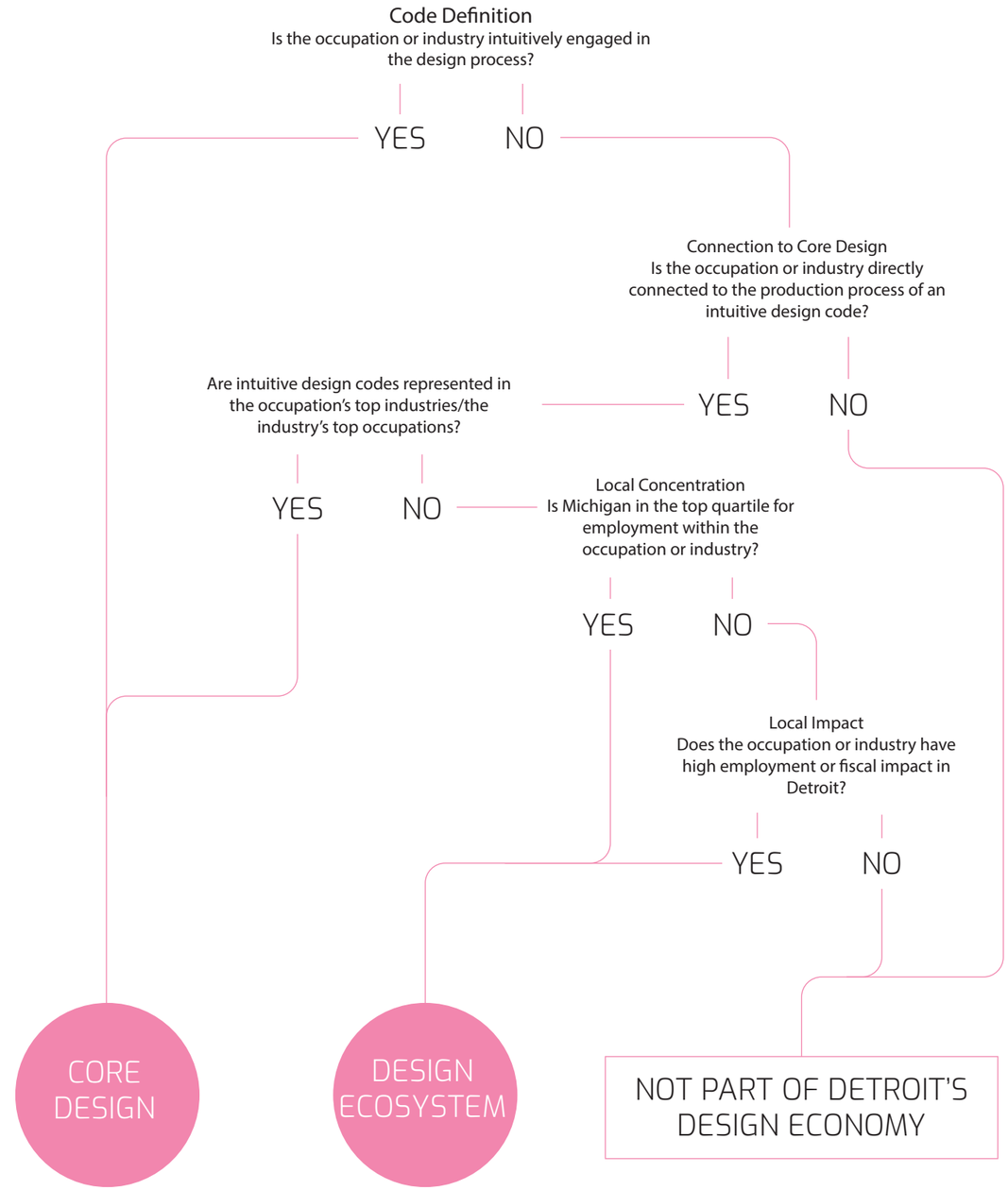
Lastly, Urbane conducted over 100 interviews with stakeholders in Detroit's design economy, including the Stewardship Committee, which helped inform and refine our working definition of design. For instance, process and scalability were themes that emerged that individuals stressed were critical to the design definition. These elements align with the UK Design Council philosophy in which design is seen as having various aspects such as "basic roles as 'framing,' 'problem-solving,' 'form and function,' and 'style.' Moreover, design arranges largely physical elements to fulfill some specific function (which may include or even primarily be style)."

Design Industry and Occupation Codes

With these definitions as a guide, we used the North American Industry Classification System (NAICS) and the Standard Occupational Classification System (SOC) to identify the comprehensive scope of industries and occupations that contribute to Detroit's overall design economy. These codes have been organized into two distinct categories: One encompasses NAICS and SOC codes that specifically involve the design process, while the other includes all codes that immediately support the output of the design process.

The industries and occupations that have been determined to directly engage in design, i.e. those that use tools to create a proposition in a medium or deploy creativity to a specific end, are designated as **Core Design Economy of Detroit** codes. Those industries and occupations that fill a function immediately after core design codes in the supply chain of a product are designated as **Detroit Design Ecosystem** codes. These determinations were made based on a hierarchy of four key criteria: (1) the code's definition, (2) the connections between the code and intuitive design industries or occupations, (3) the concentration of the code in Michigan; and (4) the impact or performance of the code on Detroit's economy. The following graphic demonstrates the process of this methodology, which is described in greater detail in the ensuing pages.

CODE TYPES



TEST 1: DEFINITIONAL CRITERIA

Core design is made up of intuitive designers, including any industry or profession that has "design" in its name or as a primary function of its role as described by the Bureau of Labor Statistics (BLS). Examples of intuitive designers include architects, interior designers and decorators, and fashion/apparel designers, all of whom are tied to both industry codes and occupation codes. This analysis will capture all relevant economic activity related to core design industries and occupations (such as jobs, revenues, demand, and fiscal impact), including potential non-design elements of the industry or occupation.

The design ecosystem strives to include the industries and professions that are integral to the creation of a proposition in a medium, although their description may not intuitively read as design-oriented. In other words, these are codes without which a designer's output could not be realized; for example, an architect needs a general contractor just as a fashion designer needs a custom tailor or seamstress.

As such, design ecosystem industries and occupations are immediately adjacent to an intuitive design code in the supply chain of the proposition or product. This criterion includes the industry/occupation whose role comes into play directly after that of the designer, such as a wood window and door manufacturer who produces the product envisioned by an industrial designer or architect. We have determined that this criterion does not include industries or occupations whose role precedes the design process; in this example, hardwood veneer and plywood manufacturers have been excluded because they manufacture only the medium in which the design is produced, rather than manufacturing the actual output of the design. Other examples of fields excluded for this reason include metal workers, glass workers, and mills. Exceptions have been made where the step immediately preceding design is specific enough that the manufacturers ensure that their product facilitates the design process, like musical instrument manufacturers and photographic equipment manufacturers.

Also excluded from the design ecosystem are any industries or occupations whose purpose is to sell or distribute the design output to a consumer, such as wholesalers and retail stores.

TEST 2: CONNECTION TO INTUITIVE DESIGN INDUSTRIES

NAICS codes and SOC codes do not align directly; industries encompass myriad occupations, while occupations can fit in a variety of industries. However, there are some cases in which an industry aligns very closely to a specific occupation. For instance, the photographer SOC code (27-4021) aligns with the commercial photography NAICS code (541922) because photographers make up 48 percent of the occupations within the industry. Both codes are designated as design ecosystem. The same is true of the core design computer programmer SOC code (15-1131) and the core design custom computer programming NAICS code (541511), among others.

In the majority of cases, occupations and industries do not align so clearly. It is in these cases that we relied on an examination of the concentration of occupations within industries and the concentration of industries within occupations. If more than 1 percent of the employment of an industry in question was taken up by an intuitive design occupation or directly supporting occupation (i.e. an occupation designated as core design or design ecosystem), the industry was included for analysis. Likewise, if at least one of an occupation's top five industries was a core design or design ecosystem industry and the occupation made up at least 1 percent of that industry, the occupation was included for analysis.

The Design Matrix (Table 1) describes the relationships between occupations and industries as they fit into core design and design ecosystem designations.

TABLE 1:
DESIGN MATRIX FOR CODE INCLUSION

DESIGN MATRIX	Design Economy Industries	Non-Design Economy Industries
Design Economy Occupation	CORE DESIGN - Included	DESIGN ECOSYSTEM - Included
Non-Design Economy Occupation	DESIGN ECOSYSTEM - Included	Excluded

TEST 3: CONCENTRATION IN MICHIGAN

If an occupation code remained in question, we used its local relevance as a further measure of criteria. The Bureau of Labor Statistics indicates the concentration of each SOC code in each state, categorizing the states into quartiles by their concentration of the occupation. Unfortunately, the same categorization is not applied to industries, but the check was useful for occupation codes. If the state of Michigan was in the top quartile for concentration of the occupation, we kept the code for further analysis; if not, and if none of the previous criteria had been met, the code was discarded.

TEST 4: LOCAL IMPACT

Any industry or occupation codes still in question were examined through a final check of local impact. If the code provided fewer than 100 jobs in the city of Detroit, and/or its fiscal impact was lower than $50,000, the code was discarded.

MAIN DATA SOURCES

Industry Data

EMSI industry data have various sources depending on the class of worker. (1) For QCEW Employees, EMSI primarily uses the QCEW (Quarterly Census of Employment and Wages), with supplemental estimates from County Business Patterns. (2) Non-QCEW employees data are based on a number of sources including QCEW, Current Employment Statistics, County Business Patterns, BEA State and Local Personal Income reports, the National Industry-Occupation Employment Matrix (NIOEM), the American Community Survey, and Railroad Retirement Board statistics. (3) Self-Employed and Extended Proprietor classes of worker data are primarily based on the American Community Survey, Nonemployer Statistics, and BEA State and Local Personal Income Reports. Projections for QCEW and Non-QCEW Employees are informed by NIOEM and long-term industry projections published by individual states.

Emsi. (2017). Industry Table, City of Detroit (All Detroit, Highland Park, and Hamtramck Zip Codes) (2017.2) [QCEW Employees, Non-QCEW Employees, and Self-Employed]. Retrieved 28 June, 2017 from Emsi online database.

Emsi. (2017). Industry Table, Detroit MSA (Detroit-Warren-Dearborn MI Metropolitan Statistical Area) (2017.2) [QCEW Employees, Non-QCEW Employees, and Self-Employed]. Retrieved 28 June, 2017 from Emsi online database

Occupation Data

EMSI occupation employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level EMSI earnings by industry.

Emsi. (2017). Occupational Table, city of Detroit (All Detroit, Highland Park, and Hamtramck Zip Codes) (2017.2) [QCEW Employees, Non-QCEW Employees, and Self-Employed]. Retrieved 28 June, 2017 from Emsi online database.

Emsi. (2017). Occupational Table, Detroit MSA

(Detroit-Warren-Dearborn MI Metropolitan Statistical Area) (2017.2) [QCEW Employees, Non-QCEW Employees, and Self-Employed]. Retrieved 28 June, 2017 from Emsi online database

Occupational Location Data

This data comes from the Census LODES data, specifically from Origin and Destination (OD) data, Regional Area Characteristics (RAC), and Workforce Area Characteristics (WAC) data which EMSI applies to our occupation jobs figures.

State Data

This report uses state data from the following agencies: Michigan Department of Labor and Economic Growth, Bureau of Labor Market Information and Strategic Initiatives

Business Firm Data

LexisNexis. Company List, Detroit (2018). Retrieved 28 January, 2018 from LexisNexis Academic database.

LexisNexis. Company List, Detroit MSA (2018). Retrieved 28 January, 2018 from LexisNexis Academic database.

LIMITATIONS OF DATA

(1) The Emsi data does not incorporate the most recent NAICS and SOC code set, which was updated in 2017. The codes utilized in this study are from 2012; in some cases, the name or categorization of codes has shifted in more recent publications of NAICS and SOC data. (2) Even the most up-to-date NAICS and SOC codes often miss emerging industries and do not encapsulate a significant portion of emerging industries and occupations, particularly those related to human-centered design. (3) The data is self-reported and self-identifying, leaving it vulnerable to error or misleading reporting.

CODES INCLUDED FOR ANALYSIS

Based on the previously described methodology, the following NAICS and SOC codes have been included for analysis.

TABLE 2:
CORE DESIGN - PRIMARY DESIGN ECONOMY NAICS CODES

Code	Tier	Description
541310	1	Architectural Services
541320	1	Landscape Architectural Services
541330	1	Engineering Services
541340	1	Drafting Services
541410	1	Interior Design Services
541420	1	Industrial Design Services
541430	1	Graphic Design Services
541490	1	Other Specialized Design Services
541511	1	Custom Computer Programming Services
541512	1	Computer Systems Design Services

TABLE 3:
CORE DESIGN - PRIMARY DESIGN ECONOMY SOC CODES

Code	Tier	Description
11-2011	1	Advertising and Promotions Managers
11-2021	1	Marketing Managers
11-3021	1	Computer and Information Systems Managers
11-9041	1	Architectural and Engineering Managers
13-1151	1	Training and Development Specialists
13-1161	1	Market Research Analysts and Marketing Specialists
15-1131	1	Computer Programmers
15-1132	1	Software Developers, Applications
15-1133	1	Software Developers, Systems Software
15-1134	1	Web Developers
15-1143	1	Computer Network Architects
15-1151	1	Computer User Support Specialists
15-1152	1	Computer Network Support Specialists
15-1199	1	Computer Occupations, All Other
15-2031	1	Operations Research Analysts
17-1011	1	Architects, Except Landscape and Naval
17-1012	1	Landscape Architects
17-1021	1	Cartographers and Photogrammetrists
17-2011	1	Aerospace Engineers
17-2051	1	Civil Engineers
17-2061	1	Computer Hardware Engineers
17-2071	1	Electrical Engineers
17-2072	1	Electronics Engineers, Except Computer
17-2112	1	Industrial Engineers
17-2141	1	Mechanical Engineers
17-2199	1	Engineers, All Other
17-3011	1	Architectural and Civil Drafters
17-3012	1	Electrical and Electronics Drafters
17-3013	1	Mechanical Drafters
17-3019	1	Drafters, All Other
19-3051	1	Urban and Regional Planners
27-1011	1	Art Directors
27-1021	1	Commercial and Industrial Designers
27-1022	1	Fashion Designers
27-1023	1	Floral Designers
27-1024	1	Graphic Designers
27-1025	1	Interior Designers
27-1026	1	Merchandise Displayers and Window Trimmers
27-1027	1	Set and Exhibit Designers
27-1029	1	Designers, All Other
43-9031	1	Desktop Publishers

TABLE 4:
DESIGN ECOSYSTEM - SECONDARY DESIGN ECONOMY NAICS CODES

Code	Tier	Description
236115	2	New Single-Family Housing Construction (except For-Sale Builders)
236116	2	New Multifamily Housing Construction (except For-Sale Builders)
236117	2	New Housing For-Sale Builders
236118	2	Residential Remodelers
236210	2	Industrial Building Construction
236220	2	Commercial and Institutional Building Construction
237310	2	Highway, Street, and Bridge Construction
237990	2	Other Heavy and Civil Engineering Construction
238110	2	Poured Concrete Foundation and Structure Contractors
238130	2	Framing Contractors
238140	2	Masonry Contractors
238150	2	Glass and Glazing Contractors
238160	2	Roofing Contractors
238170	2	Siding Contractors
238190	2	Other Foundation, Structure, and Building Exterior Contractors
238310	2	Drywall and Insulation Contractors
238320	2	Painting and Wall Covering Contractors
238330	2	Flooring Contractors
238340	2	Tile and Terrazzo Contractors
238350	2	Finish Carpentry Contractors
238390	2	Other Building Finishing Contractors
238910	2	Site Preparation Contractors
238990	2	All Other Specialty Trade Contractors
315210	2	Cut and Sew Apparel Contractors
315220	2	Men's and Boys' Cut and Sew Apparel Manufacturing
315240	2	Women's, Girls', and Infants' Cut and Sew Apparel Manufacturing
315280	2	Other Cut and Sew Apparel Manufacturing
315990	2	Apparel Accessories and Other Apparel Manufacturing
316210	2	Footwear Manufacturing
316992	2	Women's Handbag and Purse Manufacturing
316998	2	All Other Leather Good and Allied Product Manufacturing
321911	2	Wood Window and Door Manufacturing
321918	2	Other Millwork (including Flooring)
323111	2	Commercial Printing (except Screen and Books)
323113	2	Commercial Screen Printing
324191	2	Petroleum Lubricating Oil and Grease Manufacturing
326199	2	All Other Plastics Product Manufacturing
326211	2	Tire Manufacturing (except Retreading)
327212	2	Other Pressed and Blown Glass and Glassware Manufacturing
332215	2	Metal Kitchen Cookware, Utensil, Cutlery, and Flatware (except Precious) Manufacturing
332321	2	Metal Window and Door Manufacturing
332323	2	Ornamental and Architectural Metal Work Manufacturing
332811	2	Metal Heat Treating
332812	2	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers
333112	2	Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing
333244	2	Printing Machinery and Equipment Manufacturing
333316	2	Photographic and Photocopying Equipment Manufacturing
333415	2	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing
333611	2	Turbine and Turbine Generator Set Units Manufacturing
333612	2	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing
333613	2	Mechanical Power Transmission Equipment Manufacturing
333618	2	Other Engine Equipment Manufacturing
334111	2	Electronic Computer Manufacturing
334112	2	Computer Storage Device Manufacturing
334118	2	Computer Terminal and Other Computer Peripheral Equipment Manufacturing
334210	2	Telephone Apparatus Manufacturing
334220	2	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing
334290	2	Other Communications Equipment Manufacturing
334310	2	Audio and Video Equipment Manufacturing
335121	2	Residential Electric Lighting Fixture Manufacturing
335122	2	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing
335129	2	Other Lighting Equipment Manufacturing
335210	2	Small Electrical Appliance Manufacturing
335221	2	Household Cooking Appliance Manufacturing
335222	2	Household Refrigerator and Home Freezer Manufacturing
335224	2	Household Laundry Equipment Manufacturing
335228	2	Other Major Household Appliance Manufacturing
336111	2	Automobile Manufacturing
336112	2	Light Truck and Utility Vehicle Manufacturing
336120	2	Heavy Duty Truck Manufacturing
336211	2	Motor Vehicle Body Manufacturing
336212	2	Truck Trailer Manufacturing
336213	2	Motor Home Manufacturing
336214	2	Travel Trailer and Camper Manufacturing
336310	2	Motor Vehicle Gasoline Engine and Engine Parts Manufacturing
336320	2	Motor Vehicle Electrical and Electronic Equipment Manufacturing
336330	2	Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing
336340	2	Motor Vehicle Brake System Manufacturing
336350	2	Motor Vehicle Transmission and Power Train Parts Manufacturing
336360	2	Motor Vehicle Seating and Interior Trim Manufacturing
336370	2	Motor Vehicle Metal Stamping
336390	2	Other Motor Vehicle Parts Manufacturing
336411	2	Aircraft Manufacturing
336412	2	Aircraft Engine and Engine Parts Manufacturing
336413	2	Other Aircraft Parts and Auxiliary Equipment Manufacturing
336510	2	Railroad Rolling Stock Manufacturing
336611	2	Ship Building and Repairing
336612	2	Boat Building
336991	2	Motorcycle, Bicycle, and Parts Manufacturing
336999	2	All Other Transportation Equipment Manufacturing
337110	2	Wood Kitchen Cabinet and Countertop Manufacturing
337121	2	Upholstered Household Furniture Manufacturing
337122	2	Nonupholstered Wood Household Furniture Manufacturing
337124	2	Metal Household Furniture Manufacturing
337125	2	Household Furniture (except Wood and Metal) Manufacturing
337127	2	Institutional Furniture Manufacturing
337214	2	Office Furniture (except Wood) Manufacturing
337215	2	Showcase, Partition, Shelving, and Locker Manufacturing
337910	2	Mattress Manufacturing
337920	2	Blind and Shade Manufacturing
339113	2	Surgical Appliance and Supplies Manufacturing
339114	2	Dental Equipment and Supplies Manufacturing
339115	2	Ophthalmic Goods Manufacturing
339116	2	Dental Laboratories
339910	2	Jewelry and Silverware Manufacturing
339930	2	Doll, Toy, and Game Manufacturing
339950	2	Sign Manufacturing
339992	2	Musical Instrument Manufacturing
339993	2	Fastener, Button, Needle, and Pin Manufacturing
339995	2	Burial Casket Manufacturing
511110	2	Newspaper Publishers
511120	2	Periodical Publishers
511191	2	Greeting Card Publishers
511199	2	All Other Publishers
512110	2	Motion Picture and Video Production
512120	2	Motion Picture and Video Distribution
541360	2	Geophysical Surveying and Mapping Services
541370	2	Surveying and Mapping (except Geophysical) Services
541513	2	Computer Facilities Management Services
541519	2	Other Computer Related Services
541921	2	Photography Studios, Portrait
541922	2	Commercial Photography

611420	2	Computer Training
611513	2	Apprenticeship Training
611519	2	Other Technical and Trade Schools
611610	2	Fine Arts Schools
711510	2	Independent Artists, Writers, and Performers

TABLE 5:
DESIGN ECOSYSTEM - SECONDARY DESIGN ECONOMY SOC CODES

Code	Tier	Description
11-2031	2	Public Relations and Fundraising Managers
11-3051	2	Industrial Production Managers
11-3131	2	Training and Development Managers
13-1081	2	Logisticians
13-1111	2	Management Analysts
15-1121	2	Computer Systems Analysts
15-1122	2	Information Security Analysts
15-1141	2	Database Administrators
15-1142	2	Network and Computer Systems Administrators
15-2041	2	Statisticians
17-1022	2	Surveyors
17-2021	2	Agricultural Engineers
17-2031	2	Biomedical Engineers
17-2041	2	Chemical Engineers
17-2081	2	Environmental Engineers
17-2111	2	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
17-2121	2	Marine Engineers and Naval Architects
17-2131	2	Materials Engineers
17-2151	2	Mining and Geological Engineers, Including Mining Safety Engineers
17-2161	2	Nuclear Engineers
17-2171	2	Petroleum Engineers
19-3092	2	Geographers
27-1012	2	Craft Artists
27-1014	2	Multimedia Artists and Animators
27-2011	2	Actors
27-2012	2	Producers and Directors
27-4021	2	Photographers
27-4032	2	Film and Video Editors
27-2041	2	Music Directors and Composers
27-2042	2	Musicians and Singers
27-3031	2	Public Relations Specialists
27-3041	2	Editors
27-3042	2	Technical Writers
27-3043	2	Writers and Authors
27-4099	2	Media and Communication Equipment Workers, All Other
37-3011	2	Landscaping and Groundskeeping Workers
39-5091	2	Makeup Artists, Theatrical and Performance
41-3011	2	Advertising Sales Agents
43-9011	2	Computer Operators
47-1011	2	First-Line Supervisors of Construction Trades and Extraction Workers
47-2021	2	Brickmasons and Blockmasons
47-2022	2	Stonemasons
47-2031	2	Carpenters
47-2041	2	Carpet Installers
47-2042	2	Floor Layers, Except Carpet, Wood, and Hard Tiles
47-2043	2	Floor Sanders and Finishers
47-2044	2	Tile and Marble Setters
47-2051	2	Cement Masons and Concrete Finishers
51-2092	2	Team Assemblers
51-2099	2	Assemblers and Fabricators, All Other
51-6051	2	Sewers, Hand
51-6052	2	Tailors, Dressmakers, and Custom Sewers
51-6092	2	Fabric and Apparel Patternmakers
51-6093	2	Upholsterers
51-6099	2	Textile, Apparel, and Furnishings Workers, All Other
51-7011	2	Cabinetmakers and Bench Carpenters
51-7021	2	Furniture Finishers
51-7031	2	Model Makers, Wood
51-7032	2	Patternmakers, Wood
51-7099	2	Woodworkers, All Other
51-9071	1	Jewelers and Precious Stone and Metal Workers

TABLE 6:
CORE DESIGN - OCCUPATIONS REQUIRING LESS THAN BACHELOR'S DEGREE

Code	Occupation
15-1134	Web Developers
15-1152	Computer Network Support Specialists
17-3011	Architectural and Civil Drafters
17-3012	Electrical and Electronics Drafters
17-3013	Mechanical Drafters
17-3019	Drafters, All Other
43-9031	Desktop Publishers
27-1023	Floral Designers
27-1026	Merchandise Displayers and Window Trimmers
15-1151	Computer User Support Specialists

TABLE 7:
DESIGN ECOSYSTEM - OCCUPATIONS REQUIRING LESS THAN BACHELOR'S DEGREE

Code	Occupation
27-4021	Photographers
27-4099	Media and Communication Equipment Workers, All Other
41-3011	Advertising Sales Agents
43-9011	Computer Operators
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers
47-2021	Brickmasons and Blockmasons
47-2022	Stonemasons
47-2031	Carpenters
51-2092	Team Assemblers
51-2099	Assemblers and Fabricators, All Other
51-6092	Fabric and Apparel Patternmakers
51-6093	Upholsterers
51-6099	Textile, Apparel, and Furnishings Workers, All Other
51-7011	Cabinetmakers and Bench Carpenters
51-7021	Furniture Finishers
51-7031	Model Makers, Wood
51-7032	Patternmakers, Wood
51-7099	Woodworkers, All Other
51-9071	Jewelers and Precious Stone and Metal Workers
27-1012	Craft Artists
27-2042	Musicians and Singers
37-3011	Landscaping and Groundskeeping Workers
47-2041	Carpet Installers
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles
47-2043	Floor Sanders and Finishers
47-2044	Tile and Marble Setters
47-2051	Cement Masons and Concrete Finishers
51-6051	Sewers, Hand
51-6052	Tailors, Dressmakers, and Custom Sewers
39-5091	Makeup Artists, Theatrical and Performance
27-2011	Actors

TABLE 8:
CORE DESIGN - OCCUPATIONS WITH HIGH CONCENTRATION IN MICHIGAN

Code	Occupation	Detail
27-1021	Commercial and Industrial Designers	Highest in US
17-2112	Industrial Engineers	Highest in US
17-2141	Mechanical Engineers	Highest in US
17-3013	Mechanical Drafters	2nd highest in US
17-2199	Engineers, All Other	3rd highest in US
17-2071	Electrical Engineers	4th highest in US
27-1026	Merchandise Displayers and Window Trimmers	5th highest in US
11-2011	Advertising and Promotions Managers	Top quartile
11-9041	Architectural and Engineering Managers	Top quartile
15-1133	Software Developers, Systems Software	Top quartile
15-1151	Computer User Support Specialists	Top quartile
15-1152	Computer Network Support Specialists	Top quartile
15-1199	Computer Occupations, All Other	Top quartile
17-1021	Cartographers and Photogrammetrists	Top quartile
27-1011	Art Directors	Top quartile
27-1023	Floral Designers	Top quartile
27-1024	Graphic Designers	Top quartile
27-1025	Interior Designers	Top quartile
43-9031	Desktop Publishers	Top quartile
17-2051	Civil Engineers	Top quartile
17-2061	Computer Hardware Engineers	Top quartile

TABLE 9:
DESIGN ECOSYSTEM - OCCUPATIONS WITH HIGH CONCENTRATION IN MICHIGAN

Code	Occupation	Detail
51-2092	Team Assemblers	Highest in US
51-7032	Patternmakers, Wood	Highest in US
51-6052	Tailors, Dressmakers, and Custom Sewers	2nd highest in US
11-3051	Industrial Production Managers	3rd highest in US
13-1081	Logisticians	3rd highest in US
17-2199	Engineers, All Other	3rd highest in US
17-2131	Materials Engineers	5th highest in US
15-1121	Computer Systems Analysts	Top quartile
17-1022	Surveyors	Top quartile
17-2081	Environmental Engineers	Top quartile
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	Top quartile
27-1012	Craft Artists	Top quartile
27-2041	Music Directors and Composers	Top quartile
27-2042	Musicians and Singers	Top quartile
27-3031	Public Relations Specialists	Top quartile
27-2012	Producers and Directors	Top quartile
27-4032	Film and Video Editors	Top quartile
27-4021	Photographers	Top quartile
37-3011	Landscaping and Groundskeeping Workers	Top quartile
41-3011	Advertising Sales Agents	Top quartile
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	Top quartile
47-2021	Brickmasons and Blockmasons	Top quartile
47-2031	Carpenters	Top quartile
47-2041	Carpet Installers	Top quartile
51-7021	Furniture Finishers	Top quartile
51-9071	Jewelry and Precious Stone and Metal Workers	Top quartile

ANALYSIS OF COMPARABLE CITIES

Introduction

The size and growth of Detroit's design economy comes into perspective through a comparison with the design economies of the metropolitan areas of similarly positioned cities across the United States. Metrics collected across design industries and occupations for each comparable city's MSA reveal that Detroit experienced some of the worst decline in the first decade of the 21st century, but the Detroit MSA has made some of the greatest strides in these same sectors since 2011.

Methodology

SELECTION OF CITIES

Using a broad understanding of population size and economic trends in the United States, Detroit City of Design selected five cities for a comparative economic analysis: Austin, Texas; Cleveland, Ohio; Miami, Florida; Nashville, Tennessee; and Pittsburgh, Pennsylvania. Each of these cities was selected either because of relevant socioeconomic conditions or because of a concerted economic transformation that relies on innovative industries.

Cleveland and Pittsburgh, as former rust belt cities, have socioeconomic profiles similar to that of Detroit. Cleveland has undertaken an effort to shift its manufacturing industry from traditional production to higher-value, specialized output, such as computer-chip and health industry-related manufacturing. As it begins to adapt its postindustrial brownfield sites to new productive economic uses, Cleveland also seeks to use arts and cultural offerings to attract a talented workforce. A little over 100 miles to the southeast, Pittsburgh is undergoing an economic transformation that has been led in large part by its institutes of higher education. Pittsburgh is now a hub for high-tech advanced manufacturing, known particularly for its innovation clusters in fields like robotics, artificial intelligence, software, and health care. In the midst of this economic evolution, the city is attempting to ensure that its growth is inclusive of communities that suffered from the decline of traditional manufacturing industries.

Austin, Miami, and Nashville, though their socioeconomic makeup differs from Detroit's, each have made a concerted effort to harness the economic power of design. Austin has been wildly successful in commercializing its design industries, and it now leads the nation in growth of those industries. Austin has become as much a destination for creative and digital media technology as for advanced manufacturing in fields like electronics, medical devices, and aerospace manufacturing. Miami is another design economy star, with its film industry commanding international attention along with its growing fashion, engineering, and marketing sectors. The city has focused on attracting a skilled, multilingual workforce and cultivating competitive infrastructure for the production and distribution of creative work. Miami has also become a stage for global designers and art influencers to showcase their work, both through events like the annual design forum Design Miami/ and in concentrated spaces like the Miami Design District. Nashville, meanwhile, has a burgeoning creative economy whose growth is matched only by Austin, Portland, and New York City. The southern city's fashion industry and maker economy help comprise Nashville's rising market for advanced manufacturing, which is aided by the city's central location, consistent growth, and low cost of doing business.

Data from the metropolitan areas of these five cities provides compelling benchmarks by which to measure the performance of Detroit's design economy. Pittsburgh and Cleveland, which share socioeconomic characteristics with Detroit, are grouped together for comparison; Austin, Nashville, and Miami are grouped

because of their relevant economic drivers.

PROCESS OF ANALYSIS

The analysis relied on the same 2017 Emsi data that was used to measure Detroit's design economy. The data utilizes the North American Industry Classification System (NAICS) and the Standard Occupational Classification System (SOC) to provide metrics on each industry and occupation specific to a particular municipality. While the Emsi database that was initially used to measure Detroit's economy includes only the area within the city boundary, the databases used for each of the comparable cities includes their entire MSA. This analysis therefore uses data for Detroit's entire MSA to enhance the comparability of each city's metrics, but data for Detroit City is also included to highlight differences between the city center and its broader metropolitan area.

Each of the comparable cities was analyzed based on the industries and occupations selected for inclusion in Detroit's design economy, parsed into the same two categories, core design and design ecosystem. It is important to note that two of the criteria for inclusion in Detroit's design economy were specifically tailored to Detroit. Namely, after a code was analyzed for its definitional relation to the design economy and its connection to intuitive design codes, it was checked for economic concentration in Michigan and impact on Detroit's economy. The design economy codes by which each comparable city was analyzed are therefore contextually skewed to Detroit's strengths. Therefore, this analysis does not serve as a measurement of the design economy of each of the comparable cities; rather, it should be seen as a tool to measure the relative strength and growth of sectors within Detroit's design economy as compared to similar metropolitan areas.

The design economy industry and occupation codes for each of these MSAs was extracted from the comprehensive database to create four new databases for each comparable city: core design industries, design ecosystem industries, core design occupations, and design ecosystem occupations. Calculations were then performed to find the overall number of jobs, overall growth rates, and five-year growth rates for each database as well as total taxes and sales for the NAICS code databases.

OVERVIEW OF CITIES

The comparable cities are marked by attributes that are relevant for comparison to Detroit; the sizes of their populations range widely (see Table 10).

TABLE 10:
COMPARABLE CITIES BY POPULATION SIZE

Rank by Size	MSA	Population in 2016	Total Number of Jobs in 2016
1	Miami	6,088,152	2,775,896
2	Detroit	4,300,796	2,021,690
3	Pittsburgh	2,352,242	1,211,085
4	Cleveland	2,057,385	1,103,031
5	Austin	2,051,270	1,042,319
6	Nashville	1,858,130	995,838

THE CORE DESIGN ECONOMY: DESIGN JOBS AS A PERCENTAGE OF ALL JOBS

Each of the areas analyzed prove themselves to be design cities by the significant portion of all jobs that are held in design sectors. Core design industries make up a little under 2 percent of jobs in the Detroit MSA, which puts it on par with Pittsburgh and Cleveland, the other two rust belt cities.

TABLE 11:

JOBS IN CORE DESIGN INDUSTRIES AS A PERCENT OF JOBS IN ALL INDUSTRIES

MSA	Percent Design Jobs
Pittsburgh	2.5%
Detroit	1.9%
Cleveland	1.8%

Because there are more core design occupation codes than industry codes, core design occupations make up a more significant portion of jobs in all occupations. Detroit has one of the highest concentrations of core design occupations of all MSAs analyzed, coming in a close second to Austin (see Table 12). Its proportion of core design occupations is greater than that of either Nashville or Miami.

TABLE 12:

JOBS IN CORE DESIGN OCCUPATIONS AS A PERCENT OF JOBS IN ALL OCCUPATIONS

MSA	Percent Design Jobs
Austin	7.5%
Detroit	7.4%
Nashville	4.1%
Miami	3.6%

COMPARABLE CITIES BY JOB GROWTH FROM 2012 TO 2016

Each MSA has grown significantly in core design industries, which include sectors related to architecture, engineering, and computer systems, and Detroit is no exception (see Table 13). Its 22 percent growth in the latest five-year period falls within the range of the other cities with similar economic drivers, indicating that the MSA has the potential to be an emerging leader in design industries.

TABLE 13:

RANKED JOB GROWTH OF CORE DESIGN NAICS CODES

MSA	Percent Job Growth, 2012-16
Austin	45%
Nashville	33%
Detroit	22%
Miami	17%

While the number of jobs in Detroit's core design occupations has not grown as rapidly as that of its industries, the MSA again demonstrates its relative strength in core design occupations by far outpacing both Pittsburgh and Cleveland.

TABLE 14:

RANKED JOB GROWTH OF CORE DESIGN SOC CODES

MSA	Percent Job Growth, 2012-16
Detroit	18%
Pittsburgh	6%
Cleveland	5%

COMPARABLE CITIES BY PER CAPITA FISCAL IMPACT, REVENUE, AND DEMAND

The tax and sales revenue generated by each MSA's design industries, adjusted by population size, positions Detroit as a leading MSA second only to Austin (see Tables 15 and 16).

TABLE 15:

PER CAPITA FISCAL IMPACT OF CORE DESIGN NAICS CODES

MSA	Fiscal Impact Per Capita
Austin	$58
Detroit	$44
Nashville	$20
Miami	$17

TABLE 16:

PER CAPITA SALES OF CORE DESIGN NAICS CODES

MSA	Sales Per Capita
Austin	$4,919
Detroit	$3,642
Nashville	$1,714
Miami	$1,290

In per capita demand, however, Detroit is on a level similar to its fellow rust belt cities (see Table 17). Each of these three metropolitan areas generated approximately the same amount of demand per capita in 2016, with Detroit in the middle of the pack at $1,757.

TABLE 17:

PER CAPITA DEMAND OF CORE DESIGN NAICS CODES

MSA	Demand Per Capita
Pittsburgh	$1,846
Detroit	$1,757
Cleveland	$1,737

THE SUPPORTIVE DESIGN ECOSYSTEM: DESIGN JOBS AS A PERCENTAGE OF ALL JOBS

While the previous data indicated that the Detroit metropolitan area is an emerging leader in core design industries, the data below demonstrates that the MSA is already a major player in supportive design industries and occupations. Jobs in design ecosystem industries command a greater proportion of Detroit's workforce than of the workforce of other comparable cities, including the three MSAs with similar economic drivers outlined in Table 18.

TABLE 18:

JOBS IN DESIGN ECOSYSTEM INDUSTRIES AS A PERCENT OF JOBS IN ALL INDUSTRIES

MSA	Percent Design Jobs
Detroit	11%
Nashville	10.1%
Austin	8.2%
Miami	7.2%

The Detroit MSA remains a leader in supportive design occupations relative to the two similar socioeconomic cities (see Table 19). Though there are slightly more design ecosystem occupation codes than industry codes, supportive design occupations in Detroit make up a smaller proportion of total jobs.

There is a marked difference between core design and design ecosystem in terms of Detroit's relative strength in industries and occupations. In core design occupations, the MSA tends to be stronger relative to the other comparable cities. By contrast, Detroit's design ecosystem industries are stronger than its design ecosystem occupations.

TABLE 19:

JOBS IN DESIGN ECOSYSTEM OCCUPATIONS AS A PERCENT OF JOBS IN ALL OCCUPATIONS

MSA	Percent Design Jobs
Detroit	7.4%
Cleveland	5.6%
Pittsburgh	5.5%

COMPARABLE CITIES BY JOB GROWTH FROM 2012 TO 2016

The three cities with relevant economic drivers have demonstrated impressive growth in supportive design industries since 2012. The Detroit MSA, which has a relatively high proportion of its workforce dedicated to this supportive ecosystem, continues to grow its design ecosystem industries, but the MSA trails Austin, Nashville, and Miami in job growth of these NAICS codes between 2012 and 2016.

TABLE 20:

RANKED JOB GROWTH OF DESIGN ECOSYSTEM NAICS CODES

MSA	Percent Job Growth, 2012-16
Austin	28%
Nashville	21%
Miami	18%
Detroit	13%

Relative to its rust belt neighbors, the Detroit MSA has a higher rate of job growth in design ecosystem occupations. Its growth rate of 8 percent, compared to the rate of 11 percent in Table 18 above further demonstrates that the MSA is stronger in its design ecosystem industries than occupations.

TABLE 21:

RANKED JOB GROWTH OF DESIGN ECOSYSTEM SOC CODES

MSA	Percent Job Growth, 2012-16
Detroit	8%
Pittsburgh	3%
Cleveland	3%

COMPARABLE CITIES BY PER CAPITA FISCAL IMPACT, REVENUE, AND DEMAND

The Detroit MSA outperforms all other comparable cities in terms of tax and sales revenue as well as demand for its supportive design industries. Its per capita fiscal impact in 2016 was significantly higher than that of the three cities with relevant economic drivers, as was its per capita revenue.

TABLE 22:

PER CAPITA FISCAL IMPACT OF DESIGN ECOSYSTEM NAICS CODES

MSA	Fiscal Impact Per Capita
Detroit	$168
Nashville	$109
Austin	$105
Miami	$69

TABLE 23:

PER CAPITA SALES OF DESIGN ECOSYSTEM NAICS CODES

MSA	Sales Per Capita
Detroit	$28,564
Nashville	$17,502
Austin	$9,532
Miami	$5,544

The Detroit MSA's per capita demand for design ecosystem industries is a little under $11,800. The MSA again leads all comparable cities in demand for industries in the supportive design ecosystem, though Cleveland is not far behind.

TABLE 24:

PER CAPITA DEMAND OF DESIGN ECOSYSTEM NAICS CODES

MSA	Demand Per Capita
Detroit	$11,766
Cleveland	$9,350
Pittsburgh	$7,933

ECONOMIC DEVELOPMENT RESEARCH

The following questions are a sample of those used during the Visioning Process to interview close to 100 stakeholders. The questions were adapted to fit the profile of the interviewee and refined over the course of the engagement to fit developments in the research.

QUESTIONS:

GENERAL

- What is design in your context and what does it mean for your industry?
- Who are the entities and operators that interact within the design space in your industry?
- What do you need to know about the design economy to improve your interactions with it?
- How do you see design as a tool for economic development in Detroit?
- In what ways can it be inclusive of all Detroiters?
- How does design impact Detroiters, especially individuals who are not traditionally part of the conversation?
- What can Design Core and the UNESCO Detroit City of Design initiative do to move the designation forward?

QUESTIONS FOR:

COMMUNITY BASED ORGANIZATIONS

- How does design impact your work?
- Do you consider yourself part of the design economy?
- What are the critical design issues for your community?
- What is the design economy doing well in your neighborhood? What is it not doing in your neighborhood?
- What are ways to connect the diverse tissue of Detroit's neighborhoods and community?
- What are the jobs within design and creative space available to your community?
- In what ways is design being used to positively transform your community?

QUESTIONS FOR:

ACADEMICS

- What are the critical elements of the talent pipeline?
- What are the challenges to creating an inclusive class of talent?
- What is Detroit doing well in your design field?
- What should Detroit be thinking about in your field, given its infrastructure and history?
- What core infrastructure is needed — talent, space, money — to move your industry forward?
- What sectors within the design space are most in demand from an academic perspective?
- Where do you see interest from students?
- Where do you see interest from faculty matriculating into the city?

QUESTIONS FOR:

LENDERS AND INVESTORS

- What kinds of design businesses are currently being invested in regularly?
- Do you have the products to handle the design economy, particularly on the operations (credit and servicing infrastructure) side?
- Which high-performing industries in Detroit incorporate design (e.g., automotive, manufacturing, etc.)?
- What kind of policy, capital, and infrastructure are needed to facilitate entrepreneurs?
- What are the key bottlenecks to helping investors invest in creative businesses and how would you address them?

QUESTIONS FOR:

ENTREPRENEURIAL SUPPORT PROGRAMS

- How would you describe Detroit's entrepreneurial ecosystem?
- What skillsets are entrepreneurs equipped with? Which skills do they lack?
- Are there opportunities for the marginalized?
- What industries are most successful in terms of structure and audience?
- Where are the consumers of the design economy?
- What are the industries that are adapting to the "future of work"?
- What are the ways to connect small scale entrepreneurs to the larger supply chain?
- What are the best ways to train people in neighborhoods in the entrepreneurial economy?

WORKSHOP ACTIVITIES

The following are summaries of the activities used to facilitate conversations with emerging designers, established designers, and community members during the workshops.

THE TALENT PIPELINE

The purpose of The Talent Pipeline workshop was to understand the avenues emerging creatives are taking to access the job market in Detroit; the perception of creative jobs' landscape; and the barriers and opportunities of the education system. The participants consisted of up-and-coming professionals in fields that require creative thought and practice. Their backgrounds included marketing, political campaign work, architecture, and jewelry design, just to name a few.

Fourteen participants were split into three teams and tasked with creating narratives for characters pulled from a pool of five archetypal emerging designers: the part-time designer; the graduate school drop-out; the freelancer; the full-time employee; and the high school student. The narratives created by the participants were designed to summarize the path each persona took to reach their status quo. Participants were encouraged to think about degree selection and education trajectories; socioeconomic status; local and national employment opportunities; and career aspirations.

MONEY MAPPING

The Money Mapping workshop engaged establish designers and creative professionals with substantial work experience and mid- to high-level decision-making positions within design firms of different sizes. The activities were intended to generate insights of now money flows through creative businesses by mapping operational and variable costs; identifying barriers and bottlenecks; and inventorying the way the public sector can provide strategic and tactical support.

This workshop consisted of two activities. In the first, 10 participants were split into four groups and asked to map the details of a typical project within their discipline from ideation to completion. It is important to note the teams consisted of participants from within the same discipline or design field. This was intended to stimulate conversation and highlight similarities and differences between firms of different sizes.

In the second activity, participants were asked to identify variable and fixed costs associated with operating their businesses. Using a worksheet and color-coded stickers, participants were asked to rank different expenses as low, medium, or high. This included rent, materials, technology, salaries, and marketing. Each participant was asked to complete this sheet individually and report back to the larger group.

STEPPING STONES AND ROADBLOCKS

The Stepping Stones and Roadblocks workshop recruited marginalized residents with little to no connection to the creative field, but whose daily experiences are impacted by design. The objective was to identify key barriers facing marginalized persons from gaining employment and achieving economic prosperity, and to identify means and methods of improving design that would improve quality of life. As the participants were not familiar with design as a product or process, the facilitators gave examples of how they may already be interacting with design on a daily basis: from the layout of bus routes to the design of their milk cartons; to the process of registering for unemployment to the classrooms they sat in as children.

This workshop consisted of two activities. In the first, the 18 participants were split into three teams and assigned one of three personas: an undocumented worker; a returning citizen; or a middle-aged woman looking to change careers. Each team was asked to construct a narrative for their persona, identifying specific roadblocks, systemic or tactical, that reinforce an individual's marginalized status. In the second activity, participants were asked to identify the formal and informal solutions, or stepping stones, that each persona could use to overcome the roadblocks. Each team was assigned a facilitator whose job was to reinforce the way in which services and experiences are design to help or hinder a good quality of life.

WORK DEPARTMENT SUMMARY

Detroit City of Design Values for Inclusive Growth Work Summary

From April to September 2017, The Work Department led a collaborative process to develop a set of shared values. Over five months, Work Department facilitated 15 engagements with 500+ people from all walks of life. These values will guide the Detroit City of Design initiative.

Research Precedents

The Work Department drew from decades of experience in community-based, people-centered participatory design work. We researched many different sets of principles and examples of how principles were developed to identify key learnings and strategies. The purpose of our discovery phase was to propose a vision that incorporates best practices.

Key Findings:

- Principles lack meaning with context
- Principles must be realized with action.
- Principles are designed for longevity.
- Principles are often created by leaders but need buy-in to be effective.
- Principles have the power to unite people.
- Principles set the foundation for change
- "We" statements are effective.
- Principles can be shared on a variety of platforms.
- The process for developing principles must be transparent.
- Principles and brand values are one and the same.

Understand the Good Life

In June, Work Department facilitated a series of conversations to define the good life. The listened carefully as residents, designers and stakeholders discussed their hopes for the future, and synthesized their responses into a handful of keywords. People discussed what they're proud of, what they struggle with, and what their hopes and fears for the future are. The participants varied in age, background, and race.

Here are a few takeaways:

- People expressed a strong desire to unify different "Detroits" since we're all more alike than different. The opportunity we have is to better understand how design can help grow more shared spaces and language.
- People are involved in their neighborhoods and communities, and they want to better understand conversations and be part of actions, like the co-labs, that are about planning the future of our City.
- People preferred the idea of having shared "values" rather than "principles."

Prioritize Our Shared Values

In July and August, Work Department prioritized how Detroit collectively defines the good life by asking people to pair the keywords to form values that they feel are important to Detroit's future. The team began with ten adjectives and ten nouns that could be combined into 100 different possible values. A few examples of the word pairings were: thoughtful communication, diverse experiences, inclusive opportunities, and collaborative growth.

Through voting in co-labs, public events, stakeholder meetings, and an online survey, we arrived at three shared values: Accessible Opportunities, Collaborative Relationships, and Diverse Experiences.

Values to Actions

In August, we identified actions that people can take to uphold our shared values by carefully listening to and synthesizing learnings from our conversations with young people and co-labs with design professionals, community members and leaders. We explored scenarios in which a range of people could initiate projects or approach their everyday work in ways that intentionally embody the values.

Here are a few takeaways:

- The actions identified by participants ranged from individual actions like, "get to know my neighbors," to actions like, "expose kids in the city to Detroit design," that would require collaborative, city-wide efforts.
- In the scenarios co-developed by WD and DESIGN CORE, we worked to tie actions participants shared to the design community and creative economy.
- There are endless actions people can take to realize these values. Moving forward, it is necessary for DESIGN CORE to work with partners and stakeholders to prioritize actions that will have the most positive impact.

Declaration of Values and Actions

At the 2017 Design Summit on September 8, Work Department revealed the values to participants via a keynote address, a thoughtfully designed booklet, and an interactive wall exhibit. We asked participants to think of actions they can take to uphold the values and tape them to the wall as an informal pledge.

Here are a few takeaways:

- Design Summit attendees were curious about our process to develop the values
- People that participated in the process were excited to see their input reflected in the outcomes
- Design Summit attendees were energized by the values, and were interested to learn more about how they would be integrated into future Detroit design community efforts
- Moving forward, it is necessary for Design Core to work with partners and stakeholders to prioritize actions that will have the most positive impact given the resources (time, capital, and talent) on hand. It's essential to manage expectations sooner than later as you run the risk of over promising and under delivering, which undermines the inertia built so far. Many of those engaged complain of "planning fatigue" and wish to see tangible results.

SUMMIT OVERVIEW

2017 DETROIT CITY OF DESIGN SUMMIT

The Detroit City of Design Summit is an annual convening—of design professionals and partners from Detroit and beyond—to celebrate the past, present and future potential for design to drive equitable and sustainable growth in the first and only UNESCO City of Design in the United States.

Part conference, part exhibition and part interactive workshops, the 2017 Detroit City of Design Summit will offer an overview on progress and future plans for Detroit's ten-year City of Design designation while giving attendees tangible opportunities to provide feedback and to get involved. Presented by Lear Corporation, this Summit will serve as a major milestone in the visioning process that Detroit Creative Corridor Center has led over the past year, and will reveal Detroit's design values and unique economic opportunities through storytelling, interactive experiences and facilitated conversations with attendees. The event will also include the opening of "Detroit, Design, and the Future of Work", a showcase capturing Detroit's presence at the 10th International Design Biennale in Saint-Etienne, France.

SESSIONS

Session 1: It's Not the Design Economy, It's the Whole Economy

Presented by: Wayne State University and Tech Town

Host: Graig Donnelly, Assistant Vice President for Economic Development, Tech Town

Design and the Economy — Andre Clemons, Consumer Goods & Retail Industry Solution Technical Senior Manager, Dassault Systemes

Design and Manufacturing — Randy Rubin, Co-Founder and Brand Ambassador, Crypton Fabrics

Design and Technology — Karen Kozlowski, Environmental and Events Designer, Bluewater

Session 2: Designing Cities that Work for People

Presented by: University of Detroit Mercy School of Architecture

Host: Ceara O'Leary, Senior Designer and Project Director, Detroit Collaborative Design Center

Design for Neighborhoods — Kim Dowdell, Century Partners

The Power of Public Space — Mark Wallace, President and CEO, Detroit Riverfront Conservancy

People-Centered Policy — Shin-pei Tsay, Executive Director, Gehl Institute

Session 3: Collaboration = Innovation

Presented by: College for Creative Studies

Host: Sooshin Choi, Provost, College for Creative Studies

Equitable Mobility — Maria Luisa Rossi, Chair, MFA Integrated Design, College for Creative Studies

Design and Education— Manal Kadry, Art and Design Chair, Henry Ford Academy for the Creative Studies

Collaborative Partnerships for Social Innovation — Everard Findlay, The Platform

Session 4: Design and Race

Presented by: Lawrence Technological University with support from University of Michigan STAMPS School of Art and Design

Host: Cezanne Charles, Director of Creative Industries, Creative Many Michigan

Decolonizing Design — Ahmed Ansari, PhD Candidate, Carnegie Mellon School of Design

Diversifying the Design Profession — Tiffany Brown, Construction Administration, Smithgroup JJR

Inclusive Design — Pat Bosch and Karen Washington, CreateNED initiative

Session 5: Preserving and Uplifting Local Culture

Presented by: University of Michigan School of Architecture and Urban Planning Masters in Urban Design Program

Host: Maria Arquero De Alarcon, Associate Professor, U-M School of Architecture and Urban Planning

Detroit City of Skilled Trades — Carlos Neilbock, Founder, CAN Art Handworks

Design as a Catalyst for Urban Change — Anya Sirota, Co-Founder, Akoaki

Design and Music — Cornelius Harris, Founder, Alter Ego Management

Session 6: Thinking Big

Presented by: Cranbrook Academy of Art and Design, Rossetti, Japanese Business Society of Detroit

Host: Amy Deines, Dean, Cranbrook Academy of Art and Design

Grassroots Policy-Making in Puebla — Luis Arenal, Puebla City of Design

Planning Ahead for Anything and Everything — Nishi Osamu, Kobe City of Design

Design and Regeneration in Dundee — Annie Marrs, Dundee City of Design

WORKSHOPS AND EVENTS

Saturday, September 9 — Thursday, September 14

Workshop 1: #DETROITSOUND4 / Preserving and Uplifting Local Culture

College For Creative Studies A. Alfred Taubman Center for Design Education

What would happen if we listened for design instead of merely looked for it? What might change if we prioritized the sonic—in our cars, highways, workplaces, homes, studios, relationships? #DETROITSOUND4 will present a single-day conference on sound and design in Detroit, which will include panels, presentations, workshops and an exclusive performance on the Blue Blue Inn jazz stage.

Presented by: Arcgeometer, Another Country, Audio Rescue Team, davisBrand, Detroit Creative Corridor Center, hawk media and The Work Department

Event 1: CROP UP / Preserving and Uplifting Local Culture

9400 Oakland Avenue, Detroit, MI

Crop Up exhibition opening party celebrates the intersection of art, agriculture and the cultivation of the public commons in Detroit's epic North End. Curated by Akoaki, the event features artists: Andrew Black, Dr. Kno, Emily Rogers, Maxel Harfy, Ute Petit and Nick George, among others.

Crop Up is hosted by the Oakland Avenue Urban Farm at 9400 Oakland Avenue.

Workshop 2: Inclusive Design Workshop / Design and Race

This workshop will explore how inclusivity will be employed in the future development of the design profession and the role that inclusive design practices will play as we move toward the creation of Smart Cities.

Presented by: Lawrence Technological University / The Detroit Center for Design + Technology, Creative Many, M3D, CoD Planning and Development and HAA

Event 2: Detroit Design 139 Public Opening

1001 Woodward, Detroit MI 48226

An exhibition showcasing exceptional architecture and design work within the City of Detroit. Learn more at www.detroitdesign139.com

Workshop 3: Design for Business

This interactive workshop will explore the many ways design can be used as a strategic business tool for Detroit's brick and mortar businesses. Award-winning Montreal designer, Zebulon Perron, will share examples of his work with neighborhood-based small businesses and will talk about the importance of designing commercial spaces with brand, values, community and customers in mind. Zeb will also cover how understanding, communication and trust between designers and business owners is critical to successful completion of projects.

Presented by: Detroit Creative Corridor Center, Tech Town Detroit, Wayne State University, NEI, DEGC

Event 3: High Growth Happy Hour / It's Not Just the Design Economy, It's the Whole Economy

The High Growth Happy Hour series is brought to you by Southeast Michigan Startup with support from the New Economy Initiative. The series brings together metro Detroit's fastest-growing entrepreneurs to connect with those who have successfully scaled their companies. This edition will feature Randy Rubin, Founder of Crypton Fabrics.

Workshop 4: Mobility Roundtable Discussion / Collaboration = Innovation

A roundtable discussion with local academic, government, industry and community partners to explore a partnership that will develop future solutions to improve mobility in Detroit. We will share more information about College for Creative Studies' design project, Equitable Mobility 2030; will hear from a number of stakeholders about recent and upcoming initiatives related to mobility in Detroit; and will explore the benefits and opportunities of a strategic partnership.

Workshop 5: Public Design Workshop / Designing Cities that Work for People

This half-day workshop will focus on the the role design plays in building cities and neighborhoods that work for people. It will be led by New York City-based Georgeen Theodore of Interboro Partners in partnership with the University of Detroit Mercy School of Architecture and take place in the Livernois/Six Mile community.

Presented by: University of Detroit Mercy School of Architecture, Interboro Partners,

Thursday, September 14 1:00 - 4:00

Workshop 6: Academic Roundtable Discussion / Thinking Big

The next ten years will be pivotal in making massive change in Detroit from a city that understands the importance of design to a city that is redefining new policy, sustainable infrastructure and a concern for the built environment into all aspects of our shared environment.

This workshop will help participants to develop and explore the possibilities of collaboration relating to the City of Detroit Design Initiative. Audience members can present 3-minute project proposal to our panel for feedback and critique. The Panel, which consists of academics, designers and artists, will take 3-minutes to respond to each proposal with critique on the structure, who to contact next, identifying the deliverables, and brainstorming how to find funding. This is all in an effort to support creative initiates in the city.

Presented by: Cranbrook Academy of Ar and Design, Rossetti

Presented by: Cranbrook Academy of Art and Design

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